REMOVAL ACTION BRANCH



ADMINISTRATIVE RECORD BAYONNE BARRELL AND DRUM SITE NEWARK, ESSEX COUNTY, NEW JERSEY

Prepared by:

U.S. EPA Region II Technical Assistance Team Roy F. Weston, Inc Major Programs Division Edison, New Jersey

Prepared for:

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SEPTEMBER 1994

BAYONNE BARREL AND DRUM SITE

ADMINISTRATIVE RECORD FILE

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BAYONNE BARREL AND DRUM SITE

ADMINISTRATIVE RECORD FILE

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The index of documents contains the following information about each document:

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BAYONNE BARREL AND DRUM SITE ADMINISTRATIVE RECORD FILE LIST OF DOCUMENTS

Document #:

BBD - 1.1001 - 1.1003

Title:

Letter - Removal Request by New Jersey Department of Environmental

Protection and Energy to USEPA on Bayonne Barrel and Drum Co.

Category:

Site Identification

Author:

Karl J. Delaney, Director, State of New Jersey Department of

Environmental Protection and Energy, Division of Responsible Party

Site Remediation

Recipient:

Kathleen Callahan, Director, Emergency and Remedial Response

Division, U.S. Environmental Protection Agency

Date:

September 30, 1991

Document #:

BBD - 1.1004 - 1.1004

Title:

Letter - Request for ESD Sampling and Analytical Assistance

Category:

Site Identification

Author:

Richard C. Salkie, Associate Director for Removal and Emergency

Preparedness Programs

Recipient:

Richard D. Spear, Chief, Surveillance and Monitoring Branch, USEPA

Date:

November 5, 1991

Document #:

BBD - 1.1005 - 1.1010

Title:

Preliminary Assessment, Bayonne Barrel and Drum Co.

Category:

Site Identification

Author:

Mr. Edward Gaven, HSMS III, New Jersey Department of

Environmentl Protection, Bureau of Planning and Assessment

Recipient:

N/A

Date:

October 24, 1988

Document #:

BBD - 1.1011 - 1.1019

Title:

Removal Site Evaluation for the Bayonne Barrel and Drum Site,

Newark, New Jersey

Category:

Site Identification

Author:

Nick Magriples, On-Scene Coordinator, Technical Support Section,

USEPA

Recipient:

N/A

Date:

January 27, 1992

Document #: BBD - 1.1020 - 1.1062

Title: Health and Safety Inspection of Bayonne Barrel and Drum

Category: Site Identification

Author: Tamre Noblet, TAT RSO

Recipient: Joseph Cosentino, On-Scene Coordinator, USEPA

Date: August 4, 1994

Document #: BBD - 1.1063 - 1.1064

Title: Site Audit of Bayonne Barrel and Drum

Category: Site Identification

Author: Tamre Noblet, TAT RSO

Recipient: Joseph Cosentino, On-Scene Coordinator, USEPA

Date: August 10, 1994

Document #: BBD - 2.1001 - 2.1003

Title: POLREP One - Initial POLREP

Category: Removal Response
Author: Joseph Cosentino, OSC

Recipient: Distribution List
Date: July 26, 1994

4000

Document #: BBD - 2.1004 - 2.1005

Title: Pollution Report #2
Category: Removal Response
Author: Joseph Cosentino, OSC

Recipient: Distribution List Date: August 4, 1994

Document #: BBD - 2.1006 - 2.1007

Title: Pollution Report #3
Category: Removal Response
Author: Joseph Cosentino, OSC

Recipient: Distribution List
Date: August 10, 1994

Document #:

BBD - 2.1008 - 2.1025

Title:

Sampling Results: Bayonne Barrel and Drum RCRA Sampling Results

Category:

Removal Response

Author:

Louis DiGuardia, Geologist, SOurce Monitoring Section, USEPA

Recipient:

William K. Sawyer, Esq., Waste and Toxic Substances Branch,

USEPA

Date:

May 16, 1984

Document #:

BBD - 2.1026 - 2.1036

Title:

Sampling Plan for Bayonne Barrel and Drum Site, Newark, New Jersey

Category:

Removal Response

Author: Recipient: Victor Vicenty, Region II Technical Assistance Team Nick Magriples, Removal Action Branch, USEPA

Date:

N/A

Document #:

BBD - 2.1037 - 2.1052

Title:

Bayonne Barel and Drum Assessment and Sampling Trip Report

Category:

Removal Response

Author:

Victor Vicenty, TAT PM and Michael Mentzel, TAT QC

Recipient:

Nick Magriples, EPA OSC

Date:

July 22, 1992

Document #:

BBD - 2.2001 - 2.2017

Title:

Health and Safety Plan, Emergency Response/Site Investigation

Category:

Removal Response

Author:

Victor Vicenty, TAT PM, Roy F. Weston, Inc., Major Programs

Division

Recipient:

N/A

Date:

November 7, 1991

Document #:

BBD - 2.3001 - 2.3025

Title:

Confirmation of Verbal Authorization and Ceiling Increase to Conduct a CERCLA Removal Action at the Bayonne Barrel and Drum Site,

Newark, New Jersey

Category:

Removal Response

Author:

Joseph Cosentino, On-Scene Coordinator, Removal Action Branch,

Technical Support Section

Recipient:

William J. Muszynski, P.E., Deputy Regional Administrator

Date:

January 8, 1992

Document #: BBD - 3.1001 - 3.1026

Title: Transmittal of RCRA Enforcement Inspection for Bayonne Barrel and

Drum

Category: Enforcement

Author: Michael Ferriola, Environmental Scientist, Source Monitoring Section

Recipient: George Meyer, Chief, Hazardous Waste Compliance Branch

Date: August 19, 1988

Document #: BBD - 4.1001 - 4.1004

Title: Bayonne Barrel and Drum Site/ATSDR Record of Activity

Category: Health Assessment

Author: Arthur Block, Senior Regional Representative, Agency for Toxic

Substances and Disease Registry

Recipient: Nick Magriples, OSC, RAB, ERRD/RA

Date: December 9, 1991

Document #: BBD - 5.1001 - 5.1013

Title: Community Relations Plan

Category: Public Participation

Author: Region II Technical Assistance Team
Recipient: U.S. Environmental Protection Agency

Date: September 1994

Document #: BBD - 5.2001 - 5.2001

Title: Public Notice of Availability

Category: Public Participation

Author: N/A
Recipient: Public
Date: N/A

Document #: BBD - 6.1001 - 6.1002
Title: EPA Regional Guidance

Category: Technical Sources and Guidance Documents

Author: EPA Recipient: File Date: N/A

State of New Jersey Department of Environmental Protection and Energy

Division of Responsible Party Site Remediation

CN 028 Trenton, NJ 08625-0028 Tel. # 609-633-1408

Fax. # 609-633-1454

Scott A. Weiner Commissioner

Karl J. Delaney Director

SEP 30 1991

Rathleen Callahan, Director Emergency and Remedial Response Division U.S. Environmental Protection Agency 26 Federal Plaza New York, New York 10278

RE: Removal Request - Bayonne Barrel and Drum 150-154 Raymond Boulevard Newark, New Jersey

Dear Director Callahan:

The New Jersey Department of Environmental Protection & Energy (NJDEPE) hereby submits the Bayonne Barrel and Drum (BBD) site for CERCLA removal action consideration. The following information summarizes the case history and supports the removal request.

The Bayonne Barrel and Drum site was a former drum reconditioning facility occupying approximately 15 acres of Block 5002, Lots 3 and 14. The facility operated as an unlicensed TSD facility from the early 1940's until the early 1980's when the company filed for bankruptcy under Chapter 11.

In 1984, the United States Environmental Protection Agency (USEPA) issued a Consent Agreement and Consent Order to BBD for operating a TSD facility without the required permits. The United States Department of Justice (USDJ) filed suit against BBD in 1988 for continued RCRA and TSCA violations and failure to comply with the 1984 USEPA consent order. A RCRA closure plan for the site was submitted to the NJDEPE on January 4, 1990, but was never formally reviewed because no legal consent instrument was ever agreed upon between the Department and receiving owners of BBD. Mr. Langella, the principle owner of the property and responsible party, died on April 13, 1991.

In 1989 USDJ ordered the owners (BBD) to remove the materials listed below, starting with the PCB contaminated waste piles. Some effort was recently made to remove the waste piles, but the effort was abandoned upon the death of Mr. Langella.

Hazardous wastes are now stored at the site in violation of the Federal Resource Conservation and Recovery Act (RCRA) and the Federal Toxic Substance Control Act (TSCA). These waste include the following:

- 1. A large area along the northwest section of the property containing partially covered piles of PCB contaminated ash. Another pile of ash along with approximately 200 ash filled drums in poor condition are situated in an abandoned building designated as Building 2.
- 2. An incinerator used to remove residual material from drums is situated adjacent to Building 2. The ground surrounding this area is covered with a hardened paint sludge, ask and solid chemical waste.
- 3. Two large vertical tanks of unspecified capacity, purportedly contain petroleum hydrocarbon waste and an alkaline caustic wash waste generated from the drum reconditioning operations.
- 4. Six unregistered underground storage tanks which may contain toluene, xylene and methylcellosolve.
- 5. The northwest corner of Building 3 may be contaminated with hexavalent chromium waste based on a characteristic yellow crystalline material observed on a concrete wall.

In addition, there is a large pile of shredded tires and approximately 45,000 "RCRA clean" drums stored on site.

Until recently, the site had been handled as a developer site under an Administrative Consent Order (ACO) executed on November 20, 1990. However, the developers, Pearlman and Pearlman Living Trust, decided that it was not economically feasible to develop the site and subsequently declined to initiate a removal. Although it is believed that First Fidelity Bank may hold a lien on the property, efforts to locate a responsible party have thus far failed and conditions on site continue to persist.

The site is situated within a heavily populated area directly below the Pulaski Skyway. Any discharge, fire, explosion or air release could threaten the local population and seriously disrupt traffic along the nearby roadways.

The Department requests that the EPA stabilize the site by inventorying, characterizing and disposing of the abandoned materials in such a manner as to safeguard the health and welfare of the local population.

Should your staff require additional information, please have them contact David Triggs of the Bureau of Site Assessment at (609) 584-4289. Your prompt notification would be appreciated.

ery truly yours

Karl J. Delaney

Director

Yacoub Yacoub, Metro Bureau of Field Operations Richard Salkie, USEPA George Zachos, USEPA Dave Triggs, Eureau of Site Assessment PEC: Request for ESD Sampling and Analytical Assistance

FROM: Richard C. Salkie, Associate Director for Burn (G)
Removal and Emergency Preparedness Programs

TO: Richard D. Spear, Chief Surveillance and Monitoring Branch

The purpose of this memorandum is to request the technical assistance of the Environmental Services Division, Surveillance and Monitoring Branch (SMB) in support of sampling activities for the Bayonne Barrel and Drum site in Newark, New Jersey.

The State of New Jersey Department of Environmental Protection and Energy (NJDEPE) has requested that EPA stabilize the site by inventorying, characterizing and disposing of the abandoned materials at the site. As part of the removal assessment to determine whether the site warrants a CERCLA Removal Action, several vertical tanks and a number of drums need to be accessed and sampled.

The scope of work required of SMB is to access the three vertical tanks from the top, collect representative samples if material is present, and sample five to ten drums. The material in the tanks is expected to be phased. On-site air monitoring and field analyses, and off-site laboratory analyses will be arranged for by the Removal Program's TAT contractor.

A site visit is being arranged for November 7th to ascertain the best approach for accessing the tanks. Sampling assistance is requested for either the week of November 10th or 17th. If you have any questions please contact Nick Magriples at ext. 6930.

- cc. B. Metzger, ESD-DIR
 - J. Ciancia, ESD-SMB-SMS

PRELIMINARY ASSESSMENT



bayonne barrel and drum co. 154 Raymond blvd. NEWARK, ESSEX COUNTY, N.J. EPA ID # NJD009871401

GENERAL INFORMATION AND SITE HISTORY

Bayonne Barrel and Drum Co. is an inactive facility located in an industrial area of Newark, bordered by Route 1 and 9 to the west, the New Jersey Turnpike to the east, and an empty lot previously occupied by the Newark drive-in movie theater to the south. The site covers approximately 15 acres and consists of three main buildings and a large yard area. Most of the site is in Block 5002 Lot 3 (9.3 acres) and is owned by Bayonne Barrel and Drum Co. Block 5002 Lot 14 (5.5 acres) is owned by Frank Langella, principal owner of BBD, and is used as part of the facility for drum storage.

Bayonne Barrel and Drum Co. operated a drum reconditioning facility at the site from the early 1940's until about 1982 when the company filed for bankruptcy. According to NJ Department of State records, Bayonne Barrel and Drum Co. incorporated in-1937 under the name of Export Barrel Co. The name was changed to Bayonne Barrel and Drum Co. in 1942. Property deed records for Essex County indicate a history of site ownership as follows:

Bayonne Barrel and Drum Co. 1945 - present Colville Bros. Inc. 1933 - 1945
Barbara and Henry Smith 1931 - 1933
B & F Co. Inc. Prior to 1931

N.J. Department of State records indicate that B & F Co. incorporated in 1931 and dissolved in 1935; Colville Bros. incorporated in 1933 and dissolved in 1945.

Sanborn fire insurance maps show a drum reconditioning facility at the site as early as 1931, owned by B & F Co. Inc. The buildings present at the site were labeled as "tenant occupied" and included crate and drum storage, and drum cleaning areas. A review of aerial photography was conducted in 1986 by Louis Berger and Associates, a consultant for the N.J. Turnpike Authority which is proposing to construct a right-of-way over a portion of the BBD property. The following areas of potential environmental concern were noted:

- 1947 landfill activity in the southern portion of the site.
 - lagoon near eastern site boundary.
 - drainage channels connecting lagoon to Passaic River.
 - large open storage area containing several thousand drums.
- 1959 N.J. Turnpike construction near eastern site boundary.
 - liquid filled trench near old lagoon location.
 - small waste disposal area in northeast corner of site.
- 1985 dark ground staining along eastern site boundary.
 - large mound of dark material (ash) near western edge of site.
 - lagoon and waste disposal areas no longer evident.

Currently, the site contains several buildings, an incinerator, above-ground and underground storage tanks, an ash/sludge pile and an empty drum storage area (30,000 drums estimated). Since BBD filed for bankruptcy a portion of the site has been leased and used to repair and maintain trailers and cargo containers. A one-acre parcel near the northern boundary is reportedly leased to Nationwide Tire and contains a pile of used automobile tires.

SITE OPERATIONS OF CONCERN

Operations at the BBD facility/involved both closed head and open head drums. The closed head system/employed chains and caustic solution to remove residues in the drums. Spent solution from the process drained through an oil/water separator trench into a 5,000-gallon underground tank, and then was pumped into a 60,000-gallon above-ground holding/settling tank prior to being discharged to the sever under a permit with the Passaic Valley Sewage Commission. Open head drums were placed on a conveyer and processed through the incinerator with residue from the process collected in two subsurface holding/settling tanks, and then placed into a dumpster/trailer prior to being manifested off-site.

Past inspections by NJDEP representatives during 1982 and 1984 reported the following items:

- 40,000 pounds per month of incinerator ash and sludge generated at the facility, most of which was being sent to S & W Waste in Kearny, N.J.; a lesser amount was disposed of at GROWS Landfill in Morrisville, Pa.
- wastewater overflow from the 5,000-gallon tank was observed entering a storm sever as a result of a frozen pump and broken lines to the tank; the storm sewer reportedly flows to a small creek leading to the Passaic River.
- oil staining on ground surface near the above-ground tank.
- ash/sludge material on ground surface around incinerator.
- ash/sludge pile (220' x 50' x 4') on ground in rear of property, uncovered with no containment or runoff control.
- approximately 30,000 drums stacked on ground in rear of property; a random survey indicated about half of the drums contained some amount of material.

The ash pile and rows of drums (30,000 estimated) still remain in the rear of the property. The plastic cover over the ash pile is in poor condition, leaving the pile partially uncovered. In addition, a RCRA enforcement inspection conducted by EPA during June 1988 noted a large ash pile and 100-150 drums containing ash and aqueous materials in a building near the incinerator. There is also an ash pile in the courtyard between the incinerator and furnace room building.

A NJPDES-DGW permit (NJ 0064068) was issued to Bayonne Barrel and Drum Co. and several adjacent property owners in order to monitor groundwater in the vicinity of an old landfill area which was reportedly active prior to 1947, known as the 15E sanitary landfill. The landfill covers approximately 45

acres and received construction and demolition debris. It is located in the area between Foundry Street and Raymond Blvd, and encompassed the southern portion of the BBD site and the former drive-in movie theater to the south. The permit was issued 2/15/88 and includes 13 groundwater monitoring wells.

GROUNDWATER ROUTE

A soil and groundwater characterization report for the BBD site was submitted by Dan Raviv Associates in July 1986. The report contains soil and groundwater sampling data and information on site geology and groundwater conditions. Soil and well boring data indicate that the site is underlain by the following materials:

_	black coal-cinder fill material:	0-10 feet
-	medium to coarse grained sand:	10-40 feet
-	dark red-brown coarse silt:	40-50 feet
-	dark red shale (Brunswick Formation):	below 50 feet

Field investigations by Dan Raviv Associates included the installation of four monitoring wells (20-50 feet deep) and one well point (10 feet deep). The monitoring wells included two background locations, one near the ash pile, and one near the oil storage tanks the northeast portion of the site. Groundwater samples were analyzed for volatile organics, petroleum hydrocarbons, and PCB's. The monitoring well near the above-ground tank (downgradient location) was also analyzed for priority pollutants. Depth to groundwater is 3-4 feet and the direction of flow is toward the east.

Sampling data indicate that groundwater beneath the site is contaminated with volatile organics, petroleum hydrocarbons, and PCB's at concentrations significantly above background. The monitoring well near the ash pile showed low level contamination with benzene (28 ppb), napthalene (14 ppb), and di-n-butylphthalate (28 ppb). Groundwater in the northeast portion of the site near the oil storage tanks was found to be contaminated with PCB's (53 ppb), petroleum hydrocarbons (2,000 ppm), toluene (150 ppb), chlorobenzene (67 ppb), ethylbenzene (1,060 ppb), dichlorobenzenes (76 ppb), and various non-priority pollutant organics including cyclohexane (60 ppb), cycloheptane (100 ppb), isopropylbenzene (90 ppb), n-propylbenzene (150 ppb), ethyl toluene isomers (550 ppb), trimethylbenzene isomers (1400 ppb), and xylene isomers (2000 ppb).

A soil and groundwater study was also completed by Louis Berger Associates in 1986 in order to characterize contamination in the proposed NJ Turnpike right-of-way adjacent to the eastern site boundary. Two additional monitoring wells were installed in this area and the results showed contamination with volatile organics (up to 98 ppb), polynuclear aromatic hydrocarbons (34 ppb), phenol (877 ppb), and 2,4-dimethylphenol (860 ppb).

NJDEP water supply overlay and water allocation maps show no major public supply wells within a 3 mile radius of the site. Groundwater in the area is not used for drinking, however there are a number of industrial supply wells on the order of 200-700 feet deep which draw from the Brunswick Formation. Downward migration of contaminants at the BBD site could have an adverse impact on water quality of the Brunswick Formation.

SURFACE WATER ROUTE

The nearest downslope surface water is the Passaic River about 2000 feet to

the east, which empties into the Newark Bay roughly one mile south of the site. Storm severs at the site reportedly lead to Harrison's Creek and the Passaic River. A NJDEP inspection in 1982 reported wastewater flowing into a storm sever as a result of equipment malfunctions at the facility. Sample of the wastewater discharge to the storm sever showed contamination with benzene, toluene, xylene, ethylbenzene, methylene chloride, and 1,1,1-trichloroethane. The Passaic River is used for industrial purposes and occasional recreational boating.

AIR ROUTE

There are no records of air sampling conducted at the site. The facility had 12 air pollution control permits during its operation (plant ID #05103) that included drum cleaning units, paint spray booths and ovens, drum incinerator, baghouses, and a deisel fuel and gasoline tank.

During 1978 the facility was cited for opacity violations which resulted from drums not being emptied properly prior to incineration. Hydrogen sulfide type odors and other strong odors were noted by Louis Berger Associates during work along the eastern portion of the site, and by road workers during construction along Route 1 and 9. The potential for air contamination exists due to the documented volatile organic contamination at the site, however there are other sources of air pollution in the area from adjacent highways and the Nevark Airport located about three miles to the south.

SOIL

Field work completed by Dan Raviv Associates included soil samples from 19 soil borings (up to 15 feet deep) and five well borings (up to 42 feet deep). A total of 71 soil samples were analyzed at depths ranging from 0-22 feet for a variety of parameters including total petroleum hydrocarbons, volatile organics, PCB's, and priority pollutant scan. One sample was analyzed for dioxin. The highest levels of soil contamination detected at the site are listed as follows:

total priority volatile organics -	22,553 ppb
total non-priority volatile organics	- 66,035 pph
total petroleum hydrocarbons -	173,000 ppm
PCB's -	320 ppm
arsenic	390 ррш
cadmium	1300 ppm
chromium	3400 ppm
copper	15,500 ppm
lead .	8,400 ppm
mercury	13.0 ppm
zinc	5040 ppm

Petroleum hydrocarbon concentrations above 100 ppm were detected throughout the site at depths up to ten feet. Volatile organic and PCB contamination was detected in the oil storage tanks area, drum storage area, and ash pile area. The highest metal contamination was found near the ash pile and drum storage areas in the rear of the property.

DIRECT CONTACT

No reported incidents of direct contact were noted in Department files. The potential for direct contact is low since the facility is inactive and surrounded by a fence. The nearest residential area is about 1/2 mile to

the west. There is a potential for exposure by highway construction workers next to the site and the few security and maintenance staff at the facility. Past BBD employees may have been exposed to hazardous materials due to sloppy housekeeping and waste handling practices and contamination which has been documented throughout the site.

FIRE AND EXPLOSION

NJDEP Enforcement files contain two reports of fires at the site, however these did not directly involve hazardous substances or wastes present at the facility. A brush fire in 1985 encompassed the portion of the site containing the automobile tire pile, but did not spread to the rows of drums in the rear of the property. A smaller brush fire also occurred at the site in 1986. Most of the drums stacked in the rear of the property (30,000 estimated) are reported to be empty, however there may be volatile or flammable residues present in some of the drums. EPA inspectors noted 100-150 drums containing ash residues and aqueous materials in a building near the incinerator area during a recent inspection and sampling episode. Samples collected from an ash pile inside the building and an aqueous drum sample showed volatile organic contamination, representing a potential fire or explosion hazard.

ADDITIONAL CONSIDERATIONS

The potential for damage to flora and fauna is low due to the urban location of the site and apparent lack of plant and animal life. Potential migration of contaminants from the site via surface runoff and storm sewers could have an adverse impact on Passaic River biota. The potential for damage to offsite property exists through migration of contaminants in groundwater and surface runoff. Contamination was found in the proposed N.J. Turnpike right-of-way adjacent to the eastern site boundary.

EPA RCRA ENFORCEMENT INSPECTION

A RCRA sampling inspection was conducted at Bayonne Barrel and Drum on 6/2/88 by EPA Region II personnel. The facility was found to be in violation of RCRA and TSCA violations based upon sampling results and a visual inspection of the site. Analytical data showed that several waste ash piles present at the site are considered a hazardous waste due to levels of cadmium above RCRA criteria limits for EP Toxicity. An aqueous drum sample showed PCB contamination of 115 ppm and 293 ppm for arochlor 1248 and 1252, respectively. Approximately 100-150 drums were observed in the drum and ash storage room which were not labelled as a hazardous waste and apparently stored for greater than 90 days.

ENFORCEMENT ACTIONS

An EPA Consent Agreement and Order issued in 1984 cited Bayonne Barrel and Drum Co. for operation of a hazardous waste facility and storage of hazardous wastes without a hazardous waste permit. The order required the facility to implement a soil sampling program and to remove hazardous waste piles present at the site, liquid and sludge from the oil storage tanks, and areas of contaminated soil identified on the property. The facility was also required to submit a closure plan. A soil and groundwater characterization study was completed in 1986, however BBD has not complied with the remaining terms of the consent agreement.

The U.S. Justice Department has filed a suit against the company and its president, Frank Langella, for various violations of RCRA and failure to comply with the terms of the EPA consent agreement. The case is currently

in litigation. An attorney for the U.S. Justice Department has indicated that the facility may be sold to a third party which may be willing to conduct the cleanup, in which case the site would be subject to ECRA regulations. As previously mentioned, BBD filed for bankruptcy in 1982 and has reportedly defaulted on a bank loan, thus the bank (First National State Bank) could foreclose and take title to the property but has apparently not done so because they would be considered a responsible party under CERCIA as owner of the site. Both the EPA and U.S. Justice Department have expressed interest in having the NJDEP involved in reviewing any sampling/cleanup plans which may be developed for the site following litigation.

RECOMMENDATIONS

A high priority is assigned to the site due to the documented soil and groundwater contamination and wastes present at the site including several ash piles, 100-150 drums containing ash residues and aqueous materials, and oil storage tanks. The estimated 30,000 drums stacked in rows in the rear of the property are reportedly empty, however some of the drums may contain small amounts of material.

An Site Inspection Review is recommended in lieu of a sampling episode since analytical data is available. At this time the case should be transferred to the Responsible Party Cleanup Element Bureau of Case Management - State Program for overall case management responsibilities. Any future site investigation/remediation efforts should be consistent with ECRA requirements since there is a strong possibility that the facility may be sold thereby necessitating case transfer to the Industrial Site Evaluation Element.

Submitted by:

Edward Gaven, HSMS III-

Elwan Homen

NJDEP Bureau of Planning and Assessment

October 24, 1988

Removal Site Evaluation for the Bayonne Barrel and Drum Site, Newark, New Jersey

FROM:

Nick Magriples, On-Scene Coordinator & Wagidla Technical Support Section

File

I. <u>INTRODUCTION</u>

On September 30, 1991, the United States Environmental Protection Agency (EPA), Removal Action Branch, received a request from the State of New Jersey Department of Environmental Protection and Energy (NJDEPE) to evaluate the Bayonne Barrel and Drum Site for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Removal Action consideration.

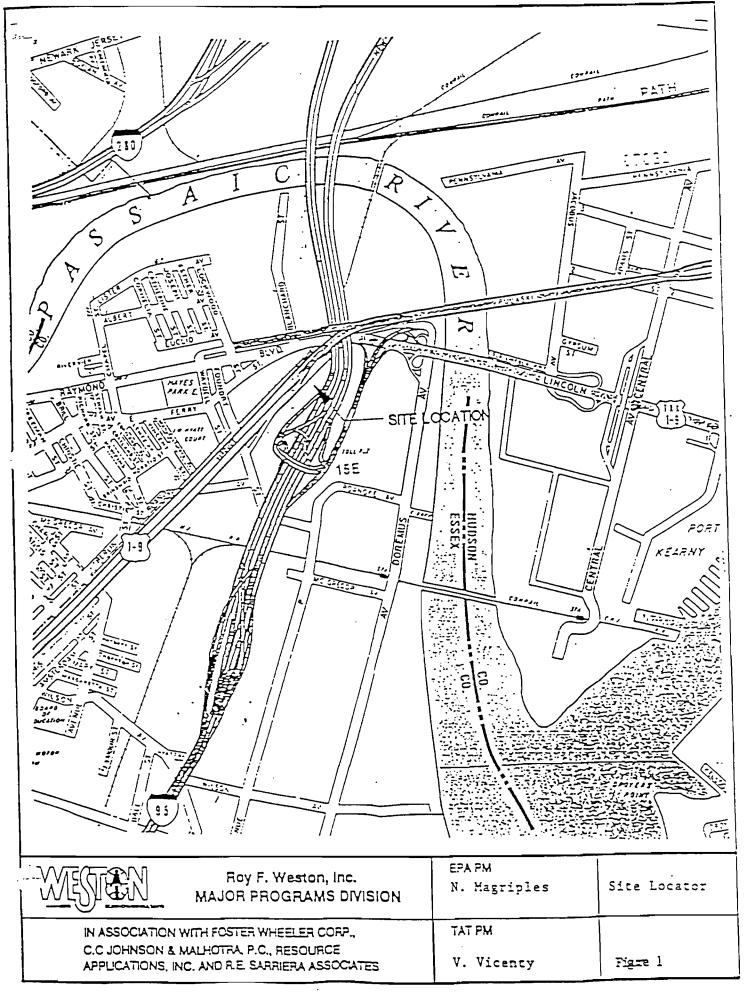
There has been a release to the environment of CERCLA hazardous substances at Bayonne Barrel and Drum. An Agency of Toxic Substances and Disease Registry (ATSDR) Health Consultation has stated that current conditions at the site pose a potential public health threat to persons on the site via direct contact. However, the materials present at the site do not appear to pose a significant threat to potential off-site targets. Current negotiations for the sale of the property would result in a cleanup as part of the transaction. The NJDEPE would, in that case, be able to oversee those activities under an administrative order. Should this transaction not take place, a CERCLA Removal Action would be warranted to stabilize the site since there would be no other mechanism available to address the potential threats.

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

1. Physical location

Bayonne Barrel and Drum (BBD) is located at 150-154 Raymond Boulevard in Newark, Essex County, New Jersey. BBD occupies approximately 15 acres of Block 5002, Lots 3 and 14. The site, formerly the location of a drum reconditioning facility, is bounded by Raymond Boulevard and an exit ramp from Routes 1 and 9 to the north and west, an entrance ramp to the New Jersey Turnpike to the east and south, and the parking lot of a movie theater to the south west (see Figure 1). The nearest residential area to the site is approximately one-half mile away.



C-2. Site characteristics

BBD operated as an unlicensed TSD facility from the early 1940s until the early 1980s when the company filed for bankruptcy under Chapter 11.

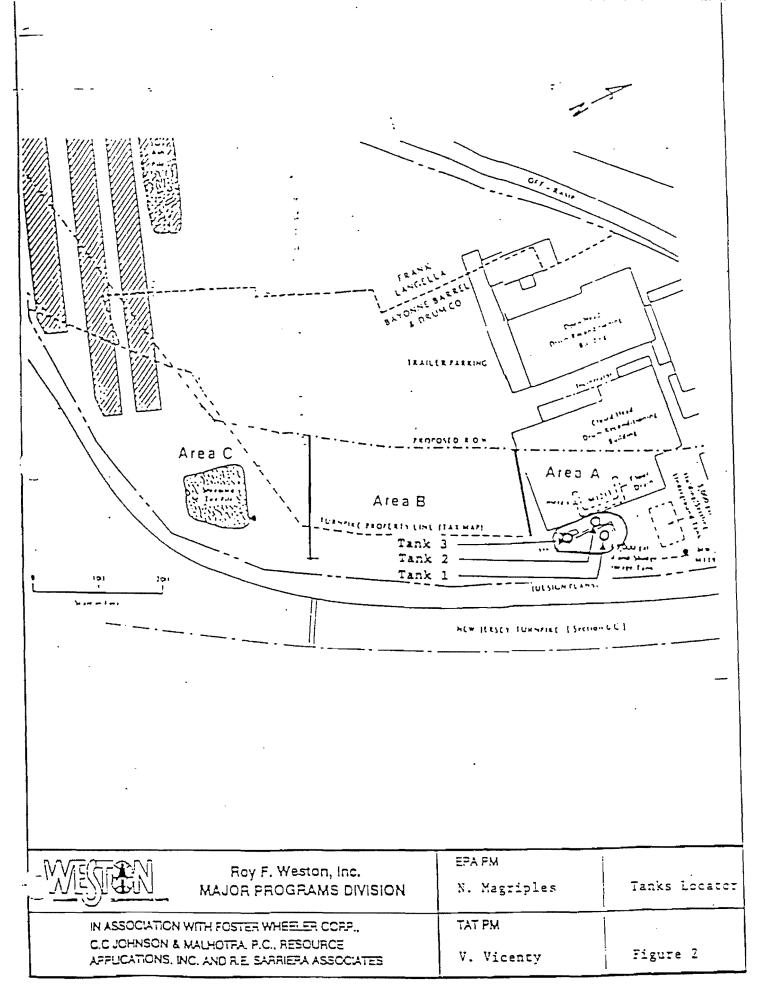
According to an EPA Environmental Services Division report from when the facility was operating, drum cleaning operations involved both closed head and open head drums. In closed head cleaning, chains and a caustic solution were used to wash out previous material in the drums. The spent solution drained through an oil-water separator into a 5,000 gallon underground holding/settling tank and was then pumped into a 60,000 gallon aboveground holding/settling tank. The liquid was decanted to the sewer under a permit to the Passaic Valley Sewage Commission. Open head drums were placed on a conveyor belt and moved through the incinerator which burned residue out of the inside. This residue material was collected in two subsurface holding/settling tanks adjacent to the incinerator. Approximately 40,000 pounds of incinerator ash and sludge were reportedly generated monthly.

Currently, all of the original buildings which existed during the facility's operations remain standing. There are three vertical storage tanks, underground storage tanks, ash piles (approximately 1,600 cubic yards), shredded tires, 300-350 drums and an ash pile in one of the buildings, and 45,000 RCRA empty drums in the field, several of which contain materials (see Figure 2).

3. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

An NJDEPE site inspection report dated March 3, 1982 indicated the presence of an ash pile at that time. Samples collected from the pile were found to be ignitable. Additionally, halogenated organic compounds were detected in the pile and its leachate at 3,450 ppm and 2,579 ppm, respectively. In 1985, samples collected by a consultant from the courtyard, near the incinerator feed, indicated petroleum hydrocarbons (16,300 ppm) and PCBs (320 ppm) at a depth of one foot. Except for lower values of PCBs, similar values were detected at the output end of the incinerator. Dioxin was not detected at 0.32 ppb. Samples were also collected from the wastewater treatment area which indicated petroleum hydrocarbons, ranging from 5,920 ppm to 59,000 ppm, from the surface to near ground water.

On February 17, 1984, EPA conducted a RCRA sampling inspection at the site. Analysis of samples collected from the ash piles at the rear of the facility and in the courtyard near the incinerator revealed the following maximum concentrations:



<u>Contaminant</u>	Highest	Concentration	Detected	(mg/kg)	
1,1,1-trichloroethane	2	7			
1,1-dichloroethane		0.5		2	
1,1,2-trichloroethans	2	5	1	DAN	1984
ethyl beniene		65		' ' ' ' \	,
methylene chloride		10 .	\	· ^	\
tetrachloroethylene	٠	2.6	11	CRA	•
toluene		~ 320)	1
trichloroethylene		8.1			
vinyl chloride		1.5	×	_ :	
arochlor 1248		~ 67.2	$\Lambda \leq i$	101	ES
arochlor 1254		117.5	7-30		
		•			
cadmium -		160			
curcuram		3,300			
copper		2,900			
lead		21,000		•	
mercury		12			
zinc		3,800			

mg/kg = milligrams per kilogram

Additionally the ash was found to be E.P. Toxic for lead.

On June 2, 1988, EPA conducted another RCRA inspection at the site. Samples collected from the ash piles, in general, revealed similar results to those presented above. Additionally, the ash was found to be E.P. Toxic for cadmium. PCBs were detected at 293 mg/kg. Analysis of a sample collected from a drum containing liquid (stored in the drum and ash storage building) was found to contain the following concentrations:

Contaminant	<u> Hichest</u>	Concentration	Detected	(ma/1)
benzene		92		
chlorobenzene		78		_
ethyl benzene		1,200	,<	(
tetrachlorcethylene		62	رمون	///
xylene		10,000		
toluene		2,400	10	
1,3-dichlorobenzene		2.6		
1,4-dichlorobenzene		34.2		
1,2 dichlorobenzene		167		
naphthalene		28.3		

mg/l = milligrams per liter

All of the materials listed above, except for petroleum hydrocarbons, are CERCLA designated Hazardous Substances, as listed in 40 CFR Table 302.4. The analytical data presented above is a summary of the most significant data available from the aforementioned reports.

The mechanism for past releases at the site appears to have been spills, poor housekeeping practices, illegal disposal practices and unpermitted wastewater discharges. Past practices of concern at these facilities have included; disposal of chemicals directly to the ground, improper drum storage and incineration of

nazardous wastes including chlorinated hydrocarbons. The mechanism for future releases to the soil and air include deterioration and/or improper disturbance of the containers present at the site. Contaminants from the soil and ash piles could become airborne if disturbed.

4. Site assessment activities/observations

The following EPA personnel were directly involved in the Removal Assessment conducted for the Bayonne Barrel and Drum Site: Nick Magriples (908-906-6930) and Robert Montgomery (908-906-6934) of the Technical Support Section, Edison, New Jersey.

The Technical Support Section conducted site visits on October 29th and November 7th, 13th and 19th in order to assess the magnitude of the situation.

On November 13, 1991 the OSC, TAT and representatives from the EPA Environmental Services Division (ESD) inspected the three aboveground tanks at the site in order to determine if they contained any materials. Table 1 lists the tanks, their dimensions, any distinguishing features and the volume of material present. Tank 3 contained an amber colored petroleum product. Upon hazcatting, it was found to be combustible. An HNU reading of 80 units was detected from the sample.

The volume of ash material and the number of drums containing material that was noted in previous reports were verified. Most of the drums in the building appear to contain ash. Of the drums in the field, approximately 12 appear to contain some material, mostly less than one-third of a drum.

TABLE 1

		Height (ft)	Diameter (ft)	Volume (gal)	· Color
Tank	1	26	6	empty	brown
Tank	2	54	12	empty	white/yellow
Tank	3	23	11	1,140	white

On November 19th, the OSC and TAT collected two composite samples of the ash from the building and the courtyard near the incinerator. The samples were sent to a private laboratory for dioxin and furan analysis. Analytical results revealed 94 parts per trillion (ppt) of 2,3,7,8-TCDD in one sample and a toxicity equivalent factor (TEF) of 973 ppt in the other sample. The TEF is a weighted, total concentration taken from the various dioxin and furan isomers, relative to 2,3,7,8-TCDD.

Air monitoring conducted in the abandoned buildings, the area of the incinerator, the field near the stacked drums and at random spots on the property did not detect anything above background levels, except as noted above.

5. NPL status

BBD is not a National Priorities List (NPL) site.

Although ATSDR has not conducted a full health assessment for the site, they have provided a health consultation for the Removal Program in order to determine if contaminants detected on-site are a public health concern (see Section III).

B. Other Actions to Date

1. Previous actions

There have been no other previous Federal actions taken at the site.

2. Current actions

Currently, there are no Federal actions taking place at the site.

- C. State and Local Authorities' Role
 - 1. State and local actions to date

The NJDEPE sent a letter to the Emergency and Remedial Response Division (ERRD) requesting that EPA stabilize the site by inventorying, characterizing and disposing of the abandoned materials at the site.

Until recently, the site had been handled as a developer site under an Administrative Consent Order (ACO). However, the developers decided that it was not feasible to develop the site and subsequently declined to initiate the removal.

Potential for continued state/local response

Other than discussed above, there are no other State/local actions taking place at the site. Should the sale of the property take place, the NJDEPE would take responsibility of the site as previously planned.

- III. THREAT TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES
- A. Threats to the Public Health or Welfare

The main threats present at BBD are exposure through direct human contact with the ash piles, the contents of the drums and the soils. The threat of a potential fire exists, but to a lesser extent, due to vandalism, based on the concentrations of organic solvents detected in one of the drums stored within the building. Although a fence surrounds BBD, there are holes cut in several areas that allow for access to the site. Additionally, the portion of the fence that runs along the New Jersey Turnpike entrance ramp is only four feet high.

A November 27, 1991 Health Consultation conducted by ATSDR stated that current conditions at the site do not pose a threat to potential off-site targets. However, there is a potential chronic threat to persons on the site that come into direct contact or disturb the ash or contaminated soils, due to the synergistic effects of the different types of materials present at the site.

B. Threats to the Environment

Hazardous substances are present in the soils and the ground water beneath BBD. Due to the industrial setting that BBD is located in, there does not appear to be a threat to sensitive ecosystems or an exposure to hazardous substances by nearby animals and the food chain. The ground water in the general area is not used for drinking water purposes.

IV. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed action to remove the hazardous substances present at the surface (drums, ash piles and soil) of the site will increase the potential for a fire and/or explosion due to arson and incidental trespassing. Although most of the site is fenced, there are access points available along the exit ramp for Routes 1 and 9, and the entrance ramp for the New Jersey Turnpike.

V. ENFORCEMENT

In 1984, the EPA issued a Consent Agreement and Consent Order to BBD for operating a TSD facility without the required permits. The United States Department of Justice (USDOJ) filed suit against BBD in 1988 for continued RCRA and TSCA violations and failure to comply with the 1984 EPA consent order. A RCRA closure plan for the site was submitted to the NJDEPE on January 4, 1990, but was never formally reviewed because no legal consent instrument was ever agreed upon between the Department and receiving owners of BBD.

BBD went into bankruptcy, under Chapter 11, sometime in the early 1980s. The principle owner of the property, Frank Langella, died on April 13, 1991.

In 1989, the USDOJ ordered BBD to remove the hazardous materials present at the site, starting with the PCB contaminated waste piles. Some effort was recently made to remove the waste piles, but the effort was abandoned upon the death of Mr. Langella.

At this time it is believed that the mortgage is being held by Mr. Phil Pearlman, a Chicago based developer, who bought the BBD mortgage from First Fidelity Bank as a favor to his friend, Frank Langella.

Mr. Milton Raff, a New Jersey real estate agent handling the BBD property for Mr. Pearlman, has leased portions of the site in the past to reportedly provide funding for the guard and the environmental consultants maintained for the site. Currently, a portion of the site is being leased to a chemical trucking firm for parking of empty tankers.

VI. CONCLUSIONS

There has been a release to the environment of CERCLA hazardous substances at BBD. A potential threat of direct contact with exposed and contaminated ash piles and soil exists to persons entering the site. Access to the site is available. The types of materials present pose a chronic threat.

Negotiations between the lien-holder of the property and a prospective buyer are currently on-going. Should the property transaction take place, the DEPE will retain oversight of any cleanup actions that take place under an administrative order. Should there be no transaction, it appears that there would no longer be any party available to take timely and appropriate actions. In the latter case, a CERCLA Removal Action would be warranted to stabilize the site.

VII. RECOMMENDATIONS

A CERCLA Removal Action is recommended for Bayonne Barrel and Drum, should negotiations fail to result in a timely and appropriate cleanup. In this case, the areas of concern would be the ash piles, the contaminated soil near the incinerator, the drums and any materials remaining in the tanks.



1090 King Georges Post Road, Suite 201 Edison, NJ 08837

Phone: 908-225-6116 Fax: 908-225-7037

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION EPA CONTRACT 68-WO-0036

DATE:

August 4, 1994

TO:

Joe Cosentino, USEPA

FROM:

Tamre Noblet, TAT (WD)
Mark Denno, TAT (WD)

THRU:

Carl Kelley, TATL

SUBJECT:

HEALTH AND SAFETY INSPECTION OF BAYONNE BARREL AND DRUM

TDD #02-9407-05 (5007)

On August 1, 1994, Tamre Noblet and Mark Denno of the Region 2 Technical Assistance Team (TAT) performed a Health and Safety inspection of the Bayonne Barrel and Drum (BBD) facility in Newark, New Jersey. The purpose of the inspection was to evaluate the implementation of the site-specific Health and Safety Plan (HASP), prepared by OHM, at the BBD facility. The USEPA Health and Safety Audit Guidelines checklist was used as a reference during the writing of this inspection report. A copy of the Health and Safety field review checklist is provided as an attachment to this report, as is a copy of the TAT Field Site Safety Inspection Form.

Overall, the HASP appears to be adequate for the tasks being performed. However, several instances were noted where the HASP was not being followed. In addition, there appears to be a general lack of communication between the TAT representative and the ERCS Project Safety Officer.

The results of the inspection are as follows:

ITEM 4.1.1:

Has the employer informed workers or their representatives of the site emergency response procedures and any potential fire, explosion, health, safety, or other hazards of the hazardous waste operation that have been identified?

FINDING:

The TAT representative on site had not been briefed on site emergency procedures and was not aware of what actions would need to be taken in case of an emergency.

ITEM 4.2.2:

Are site work zones clearly defined on-site (e.g., exclusion zone(s), contamination reduction zone(s), and support zones)?

- Roy F. Weston, Inc.

MAJOR PROGRAMS DIVISION

⁻ In Association with Foster Wheeler Enviresponse, Inc., Resource Applications, Inc., C.C. Johnson & Malhotra, P.C., R.E. Sarriera Associates, and GRB Environmental Services, Inc.

FINDING:

Only the exclusion zones were clearly defined on site. It was not clear which area(s) were designated as the contamination reduction zone(s) and/or the support zone(s).

ITEM 4.3.6:

Have the employees working on-site been trained appropriately in safety, health, and other hazards present on the site?

FINDING: .

Employees may not have been trained on all hazards present on the site because Material Safety Data Sheets (MSDS) have not been supplied for the chemicals used in the laboratory during HAZCAT procedures.

ITEM 4.5.1.5:

Is the Personal Protective Equipment (PPE) in place adequate for the chemical and physical hazards onsite?

FINDING:

A number of persons were observed not wearing the PPE outlined in the HASP. Specifically, the individual responsible for moving drums from Building A to Building B should be in Level B (not Level C); support zone workers should be in Level D, which includes safety glasses, hard hats, steel-toed work boots and work clothing. Laboratory personnel performing HAZCAT work were wearing appropriate PPE for the activities they were performing (lab coat, safety shoes, and safety glasses), but the HASP incorrectly requires them to wear Level D, which does not require a lab coat, but does require a hard hat.

ITEM 4.8.2:

Are standard operating procedures and good work practices being used to minimize employee contact with hazardous substances and with equipment that has contacted hazardous substances?

FINDING:

Clean PPE was seen on top of waste drums and air monitoring equipment was left in possibly contaminated areas in the exclusion zone.

ITEM 4.8.4:

Are all employees, clothing, and equipment decontaminated properly prior to leaving a contaminated area?

FINDING:

Personnel decontamination procedures have been established, however, they are not the procedures that were outlined in the HASP. Also, no area for equipment decontamination could be found. Of specific importance could be that the drum spike is not decontaminated in between drum openings.

ITEM 4.9.1: Are personnel roles, lines of authority, and communication among employees evident in the field (e.g., is the person who would be in charge during an emergency incident clearly identifiable?)

FINDING: The TAT representative has not been made aware of what the emergency procedures are, or who would be in charge during an emergency situation.

ITEM 4.9.5: Are employees familiar with (emergency) decontamination procedures?

FINDING: Employees may not be familiar with emergency decontamination procedures because the generator that runs the emergency personnel decontamination shower had not been started prior to work beginning in the exclusion zone.

ITEM 4.9.6: Are emergency medical treatment and first aid available to employees?

FINDING: Those persons qualified to provide first aid have not been clearly identified.

In addition to the above items, the following general safety issues were noted:

FINDING 1: There are drums located in structurally damaged buildings that need to be assessed. Recommend that an engineer certifies the buildings as structurally sound prior to entering into those areas.

720

FINDING 2: Site visitors were not briefed prior to entering the facility, and particularly the exclusion zones. All visitors should be briefed on proper LOP, emergency procedures and work zones prior to entering the site.

FINDING 3: While spill containment procedures have probably been implemented, recommend that these procedures be made more formal. For example, all of the spill containment equipment could be kept on a pallet located adjacent to the exclusion zone to ensure easy access to the supplies in case of an emergency.

FINDING 4: The drum overpacking procedure of lowering the drums into the overpack with the bobcat and then dropping them in, is not adequate. Drum slings should be utilized so that drums can be lowered into the overpack drums.

FINDING 5: The backhoe blast shield was left open during remote drum opening operations. Recommend all safety procedures be strictly adhered to during remote drum opening operations.

FINDING 6: Continuous air monitoring for organics and particulates was not performed. Recommend air monitoring be performed, at least adjacent to the remote drum opening operations, on a continuous basis, to ensure that there are no releases into the contamination reduction zone, the support zone, or off-site.

FINDING 7: The action level that was established for particulate monitoring is inappropriate for the contaminants of concern. Recommend that the particulate action level be changed from 10 mg/m³ (PEL for nuisance dust) to 0.05 mg/m³ (PEL for lead). It would also be appropriate to have dust suppression procedures in place, so if needed, migration of contaminants into the support zone and/or off-site could be prevented.

FINDING 8: Airline hoses and other debris were obstructing the exit from the exclusion zone in Building B. Recommend that more stringent housekeeping procedures be adhered to, and ensure that hoses do not present a tripping hazard. It is also recommended that the airline hoses be wrapped to provide them additional protection.

Attachments

.....

cc: File

CEAPTER 4

ETATTE AND SAFETT FIELD REVIEW

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/ 1 7 - 5	1 B	100713			
4.1. Information	nal Programs - 29 CFR 1910	.12U(b) 2nd	(1)		
	employer's responsibility th program consistent with				
	has the employer informed the site emergency respons explosion, health, safety, waste operation that have	e procedure or other h	s and any po azards of th	cential	fire,
	[YES]		(NO, EXPL)IN]	
	M. TAT LOG CONTRA	11 5			
	le TAT representa	rice was	- 107		
•	aware of the energy	ncy rep	use puce	<u>dur</u>) .
Field	Verification 1	2	3		
4.1.2	Is the site HASP available designated representatives personnel (when applicable	s of the emp			
	[AER])		(NO, EXPL	AIN]	
				A	

Field Veriffication 1. ____ 2. ___ 3. ___

4.1.3,	Have bealth and safety briefings of site activities and as necessare remain apprised of the HASP?	
([NO. EXPLAIN]
Tie.	ld Verification 1 2	3
4.1.3	Are inspections of the site being and health supervisor or designee plan?	
	(NOTE: It is the employer's resp deficiencies in the site HASP.)	consibility to correct any
	[YES]	[NO, EXPLAIN]
	wknown	**************************************
	-	
Fie	eld Verification - l 2	3
4.1.5		
	•	
4.1.6		
su	MMARY OF RESPONSES [YES]	[NO, EXPLAIN]

4.2 Site Control - 29 CFR 1910.120(d)

Site control should "minimize potential contamination of workers, protect the public from the site's chemical and physical hazards, facilitate work activities, and prevent vandalism." In accordance with 29 CFR 1910.120(d)(3), the site control plan must include a site map, site work zones, use of a "buddy system," site communications, standard operating procedures or safe work practices, and identification of nearest medical assistance. Often sites are divided into exclusion zone(s), contamination reduction zone(s), and a support zone.

Hazardous Waste Handbook for Health and Safety, p. 149.

2.1	Is there a site map that	[NO, EXPLAIN]
	(1221)	(NO, EXPLAIN)
Fie:	ld Verification 1.	2 3
	topographic features, pr	his map depicts such details as evailing wind direction, location of any chem
2.2	Are site work zones clea or other appropriate ind	rly defined on-site (e.g., benner gioators)?
	[YES]	[NO, EXPLAIN]
	Site work zones	are not clearly
	defined.	
Fie	eld Verification 1.	2 3
.2.3		rogram indicate site work zones (e.gamination reduction zone(s), and su
ı	[AE2]	[NO, EXPLAIN]
Fi	eld Verification 1.	2 3
.2.4		on systems such as walkie talkies o e to alert employees in the event o
	(YES)	[NO, EXPLAIN]

	facility been made	e evailable to on-sit	e employees?
			[NO, ECPLAIN]
Fia	ld Vetification 1	·· 2	3
.2.6	fancalina, bomia	my markings, security ing signs to alert nea	oriztely, (e.g., exist patrol) and labeled stby residents to the
	YES	[NOT AVAILABLE]	[NO, EXPLAIN]
Fie	eld Verification	1 2	3
4.2.7	Are emergency pho	one numbers conspicuo	usly posted at the si
	eld Verification	1 2	3
4.2.8			
4.2.9			·
ST	MARY OF RESPONSES	[YES]	[NO, EXPLAIN]
Trainir	ng - 29 CFR 1910.12	20(e)	

4.

Training is required for all employees who engage in hazardous waste field activities. These requirements include initial off-site health and safety training, supervised on-the-job training, and annual health and safety refresher training.

On-site managers or supervisors with direct responsibility for supervision of employees engaged in harandous waste operations require

requirements,		d interview Efice, and	employees, determine e	request documentation mployee proficiency th	
4.3.1	Do all employed to indicate in			e documentation availa y training?	ble
	[YES]			[NO, EXPLAIN]	
		MKNO	WN		
	•				
Fiel	d Verification	1.	2	3.	
4.3.2				re documentation availa requirements for 29 CF	
	[YES]			[NO, EXPLAIN]	
		LNK	NWOL		
Fie	ld Verification	1	2. <u></u>	3	
4.3.3	and safety tra	aining one icating com	year or mor pletion of	o had their initial here ago, have documentation eight hour annual here?	ion
	[YES]			[NO, EXPLAIN]	
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F1s	eld Verification	1	2	3.	
4.3.4	responsible f	or supervis	ion of emplormentation	who are directly oyees engaged in hazar of additional training	
	[YES]			[NO, EXPLAIN]	
		Wikn	ωW.		
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	employee's	work experience	ia and/or tr	on or described the control of the employee	ed in
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4.3.6				een trained appro present on the s	
	[YES]			(NO, ECPLAIN)	
					- -
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4.3.7		employees worki in the use of I		received appropria	ete
	[YES]			(NO, EXPLAIN]
	4	we	NOWN		<u>.</u>
. î î	eld Verifica	tion 1	2	3	_
	Have the training recogniti	employees work in medical sur	ing on-site veillance re and signs t	received appropri quirements, inclu hat might indicat	ding
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	following eleme			اتست بد.	
	4.3.9.1 Site	control meas	wes?		
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•	4.3.9.2 Deco	ntarination ;	oroceduras:	?	
	[YES]	UN KNOWN		[NO.	EXPLAIN]
Fiel	d Verification	1	2	3	
	4.3.9.3 Emer	gency respon	se plan?		
	[YES]	un bracori		[NO,	EXPLAIN]
Fie	ld Verification	1.	2	3.	
	4.3.9.4 Conf	ined space e	ucià bioce	dures?	
	[YES]	MISNOMM		[NO,	EXPLAIN]
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Fie	ld Verification	1	2	3.	
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[355]		(NO, EXPLAIN	5 <u>:</u>
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.eld Verification 1	2.	3.	

4.4 Medical Surveillance : - 29 CFR 1910.120(f)

A medical monitoring program is essential to assess and monitor workers' health and fitness. In addition, OSHA recommends a medical evaluation for employees required to wear a respirator (29 CFR Part 1910.134[b][10]), and certain OSHA standards include specific medical requirements (e.g., 29 CFR Part 1910.95 and 29 CFR Parts 1910.1001 through 1910.1048). Members of hazardous materials' teams are also required to be enrolled in a medical monitoring program.

Medical examinations, provided without cost to the employee, must include a medical and work history with special emphasis on symptoms related to the handling of hazardous substances and health hazards. Special emphasis should also be placed on fitness for duty, including the ability to wear any required PPE under conditions that may be expected at the work site (e.g., temperature extremes). The employer should obtain and furnish the employee with a copy of a written statement from the examining physician, documenting that the employee is qualified to work at hazardous waste sites and to wear respiratory protection equipment. All medical records should be maintained as confidential and made available to the employee or his designee upon written request.

	[YES]		[NO, EXPLAIN]	
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4.4.2 ·	sites for 30 de hazardous substantous exposure limite office or on the	ays or more per ye tances at or above s have documentat he site) that ind	ry protection at hazardous rear or may be exposed to a OSHA-PELs or other publishing available (in their homicates they have had baselingsicals consistent with 29	hed e ne
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4.4.3	Are employees physician in w	-	ical reports from the atten	ding
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	Have employees results of the	s received a verba	al medical briefing regardit	ag th

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4.5 Engineering Controls, Work Practices, and Personal Protective Equipment For Employee Protection - 29 CFR 1910.120(g)

The following references cited in Appendix G of the Guidelines would be particularly helpful for evaluating compliance with the PPE provisions in the HASP:

Personal Protective Equipment for Hazardous Material Incidents: A Selection Guida, 1984;

<u>Guidelines for the Selection of Personal Protective Equipment</u>, 3rd Edition, 1987;

Hazardous Waste Inspections Reference Manual, 1986; and

Performance of Protective Clothing, 1986.

To determine if an employee is adequately trained in the use of PPE, onsite interviews should be conducted to ascertain the employee's familiarity with the PPE. It may also be appropriate to request that an employee demonstrate his/her knowledge of PPE by demonstrating its use in the Support Zone. (The employee should not be requested to demonstrate PPE knowledge in the Exclusion Zone, especially since the employee may have an inadequate understanding of the PPE in question.)

29 CFR 1910.120(g) requires establishment of a PPE program for hazardous waste operations that addresses:

- Site hazards;
- PPE selection;
- PPE use;
- Work mission duration;
- PPE maintenance and storage;
- PPE decontamination and disposal;
- PPE training and proper fitting;
- PPE donning and doffing procedures;
- PPE inspection procedures prior to, during, and after use;
- Evaluation of the effectiveness of the PPE program; and
- Limitations during temperature extremes, heat stress, and other medical considerations.

4.5.1 <u>Personal Protective Ecuipment - General</u>

Appendix D of the EPA Audit Guidelines provides guidance on appropriate PPE for EPA's Lavels A, B, C, and D.

4.5.1.1	ls a writte elements in statements inspection	regarding pr	ocačuras,	guidelines	, and pol	icy
				[NO, E	EVELAIN!	
	1	WKNOW	M			

Field Ve	rification		2	3		
	the enswer i erve for the					
٤.	Are the er	ployees tra	ined regar	rding on-s	ite hazar	Ės?
[YE	S]			[NO,	EXPLAIN]	

				•		
Field Ve	rification	1.	2	3.		
Ò.	Are the e	aployees ade	equately t	rained in	selection	of PPE?
EY]	:S]			[NO,	EXPLAIN]	
Field Ve	erification	1.	2	<u>·</u> 3.		
c.	Are the e	mployees ad	equately t	rained in	the use o	E PPE?
[Y]	ESj			[No,	EXPLAIN]	
	· · · · · · · · · · · · · · · · · · ·					
Field V	erification	1.	2.	3.		

	time for	job tasks	and estimat	ed time of		
[YES]			. [%0,	EXPLAIN]	
*************	, part y pro-					
ield Ver	ification	1.	2.	3.		
. e.	Do emplo	yees maint	ain and stor	e PPE epp	ropriately	·?
[YES]			[NO,	EXPLAIN]	
-						
ield Ver	ification	1	2	3.	Annual Control of the	
f.	Do emplo		how to decor	ntaminate	and dispos	se of PE
(YE	5]			[NO,	EXPLAIN]	
	100					
ield Ve	rification	n 1	2	3.		
g.	Are emp	loyees fit	ted properly	for PPE?		
ΞΥ] 	5]			. [NO.	EXPLAIN]	
Field Ve	rificatio	n 1.	2.	3,		
ħ.	Do empl	oyees kmow	nos co won	and doff	PPE?	
[YE	i S			[편0	, ECPLAIN]	
						•

=	. Do employees know how to adequa inspection of gloves, fully encories to, during, and after use	apsulating suits, etc.)
:	MRZ.	[NO, ETPLAIN]
-		
Field	Varification 3 2	<u> </u>
	. Is there a system in place to e of the PPE program?	evaluate the effactiveness
1	[YES]	(NO, EXPLAIN)
-		
Field	Verification 1 2	3
	k. Are employees knowledgeable aborelated to temperature extremes appropriate medical considerations	s, heat stress, and other
	(YES]	[NO, EXPLAIN]
		,
Field	Verification 1 2	3
4.5.1.2	Are employees at this specific site use, maintenance, and storage of PP	
	[YES]	[NO, EXPLAIN]
	UNIKNO W N	
Field	i Verification 1 2	3

4.5.1.3	Is there sufficient PPE available for the personnel involved the performance of site operations?	in
	[YES] [NO, EYPLAIN]	
	imknewn	
Fi	ield Verification 1 2 3	
4.5.1.4	4 Is health and safety instrumentation (e.g., FID, PID, air sampling pumps, radiation meters) maintained and calibrated of site?	:=-
	(YESD) [NO, EXPLAIN]	
	TAT Equipment maintained.	
F	Field Verification 1 2 3	
4.5.1.	.5 Is the PPE in place adequate for the chemical and physical hazards on-site?	
	[YES] NO, EXPLAYN]	
	Personal were not wearing the	
	Personal were not wearing the APE outlined un the HASP.	
Ī	Field Verification 1 2 3	
4.5.1.	.6	
4.5.1.	. 7	
:	SUMMARY OF RESPONSES [YES] [NO, EXPLAIN]	
4.5.2	Respiratory Protection	
	following references cited in Appendix G of the EPA Audit Guidelinularly helpful for evaluating the respiratory protection provising:	
	Air Sampling Instruments, 1983;	
	Guida to Industrial Respiratory Procedure 1987.	

	<u>to Portable Inc</u> ng from Manardou			<u> Airborne Polluta</u>	<u>mts</u>
	<u>lines for the Se</u> em. 1987;	laction <u>of</u> Pa	rsemal Prot	sactiva Ecuithaet	<u>:</u> , 376
NIOSH	VOSEA Pocket Gui	<u>de to Chemica</u>	<u>l Hamands</u> ,	1985; and	
	rical Guide to Re	<u>estitetot Üse</u>	<u>in Industr</u>	<u>:</u> , 1985.	
	Is a written res written standard respirators (i.e inspection on-si	i operating pr a., 29 CFR 191	ocedures f	or selection and	i usa of
	[YES]			[NO, EXPLAIN]	
		inkvin			
	Market Ma				
Fiel	d Verification	1.	2	3	
4.5.2.2	Have all employ successfully fo with 29 CFR 191	r negative pr		ita been fit-ta irators in acco	
	[YES]			[NO, EXPLAIN]	
		UNKNOWN			
Fiel	d Verification	1	2	3	
4.5.2.3		mentation ava indicates the	ilable (at y have had	the home office baseline physic	e or on
	[YES]			[NO, EXPLAIN]	
		MENOWN			
Fia	ld Verification	1.	2	3	
4.5.2.4					
					_

كشت	ARY OF RESPONSE	:5	[YES]	(NO, EXPLA	[X]
	Physical Hanard	Ē			
	mer category (N				
.5.3.1.	If there are o work) on-site, that meet the	, do emplo	yees wear ha	rd hats in thes	
	[YES]	NOT APP	LICASIE]	(NO, EGL	AIN]
					, F
Fie:	Ld Verification	1	2.	3.	
.5.3.2	that ambient	e weighted noise leve muffs or e	average noi ls may be gr ar plugs wor	se measurement eater than or n by employees	s ind: equal
5.3.2	that ambient of day, are ear of	e weighted noise leve muffs or e 9 CFR 1910	average noi ls may be gr ar plugs wor	se measurement eater than or	s indi equal on-si
.5.3.2	that ambient of dBA, are ear of required by 20	e weighted noise leve muffs or e 9 CFR 1910	average noi ls may be gr ar plugs wor 0.95?	se measurement eater than or n by employees	s indi equal on-si
	that ambient of dBA, are ear of required by 20	e weighted noise leve muffs or e 9 CFR 1910	everage noi ls may be gr er plugs wor 0.95?	se measurement eater than or n by employees [NO, EXPL	s indi equal on-si
	that ambient in dBA, are ear in required by 20 [YES] Ld Verification NOTE: 29 CFR	e weighted noise leve muffs or e 9 CFR 1910 [NOT APP	everage noing and plugs work of the plugs of the p	se measurement eater than or n by employees [NO, EXPL	s ind: equal on-s: AIN]
	that ambient of dBA, are ear of required by 20 [YES] ld Verification NOTE: 29 CFR conservation noise levels If heat or content administrations	e weighted noise leve muffs or e 9 CFR 1910 [NOT APP 1	everage noing and plugs work of the plugs of the p	se measurement eater than or n by employees [NO, EXPL 3. implementation if time weight con-site, are work/rest regit appropriate Propriate Pro	s ind: equal on-s: AIN] of a ed av engin

4.5

	NOTE: PPE should Administrative of minimize emposur	entrols show	ld first be	addressed as a	
E1=1	2 Terification	and a second	2.		
4.5.3.4	If radiation (i. sita, are engine selection appropradiation metars	ering/z ini rigib for ti	Strative con Le tasks at 1	uttols and/or B and (e.g., wse	
•		NOT AFFLICA	3 <u>1</u> 2]	[NO, EXPLAIN]	
Fiel	d Verification	<u>1</u> .	2	3.	
4.5.3.5	If "hot work" su the following qu			g is occurring	on-site,
	a. Is appropri	late combust being condu		icator (CGI) a	ir
	[YES]	NOT APPLICA	BLE]	[NO, EXPLAIN]	
Fie	ld Verification	1.	2.	3.	
		loyee wearin		e protective g	oggles and
	[YES]	(XOT APPLICA	SVE]	[NO, EXPLAIN]	-
					-
Fie	ld Verification	1.	2.	3.	

4.5.3.6	explosives, dee	If there are other unique physical hazards on-site (e.g., explosives, deep and/or rapidly noving water), is appropriately being worm on-site to address such problems?					
	[YES] ((NOT APPL)O		[NO, EXPLAIN	İ		
Fie	ld Varification	1.	2	3			
4.5.3.7					_		
4.5.3.8					····		
SUM	MARY OF RESPONSES	5	[YES]	[NO, EXPLAIN	[]		

4.6 Honitoring - 29 CFR 1910.120(h)

Two principal approaches are available for identifying and/or quantifying airborne contaminants:

- On-site use of real time instruments; and
- Laboratory analysis of air samples obtained by gas sampling bag, collection media (e.g., filter, sorbent), and/or wetcontaminant collection methods (e.g., impinger method or wet chemistry technique).

All instruments used on-site should be operated in accordance with accompanying equipment manuals. Many of the detector tubes have both positive and negative interferences that are specified in the accompanying literature for the respective detector tube.

Air sampling methods that use charcoal tubes, Tenax³ tubes, silica gel tubes, and wet chemistry techniques (e.g., impinger methods) will often be necessary to assist in the identification of unknown contaminants.

It is important that users realize that there are many compounds for which there are no real time instruments capable of measuring contamination. As a result, it often is necessary to resort to air sampling with subsequent laboratory analyses. OSHA regulations require particular air sampling procedures, FFE requirements, and recordinaping for a variety of compounds.

If information from the site characterization indicates a potential for ionizing radiation and/or IDLE conditions on-site or if insufficient information is available to demonstrate otherwise, then air nonitoring shall include:

- Monitoring with direct readout instrumentation for ionizing radiation and/or IDIH conditions including toxic, explosive, combustible, and oxygen deficient atmospheres; and
- Visual observation for actual or potential IDLH conditions on-site.

If after site characterization there are indications that the site is safe for start-up operations, a regular air nomitoring program must be adhered to during site operations.

4.5.1	airionne levels of	.Is air monitoring being conducted to identify and quantify airborne levels of hazardous substances in order to determine the appropriate level of on-site employee protection?				
	[YES]	and a control of	[2	O, EXPLAI	EN]	
	L	LU ENKLIN				
Fie	ld Verification 1	2.		3.	······································	
4.6.2	Is air monitoring Dangerous to Life situations, such a	or Health (IDL	H) levels	and othe	r dangerous	
	oxygen deficient e contaminants, and	nvironments, t	oxic lave			
		nvironments, t	oxic leve: teríals?		borne	
	contaminants, and	nvironments, t	oxic leve: teríals?	ls of air	borne	
	contaminants, and	nvironments, tradioactive ma	oxic leve: teríals?	ls of air	borne	
Fi	contaminants, and [YES]	nvironments, tradioactive ma	oxic leve: teríals?	ls of air	borne	
Fi.	contaminants, and [YES]	nvironments, tradioactive ma Jknown 2. being performe	oxic leve:	ls of air	Dorne	
	contaminants, and [YES] LUA eld Verification 1. Is air monitoring	nvironments, tradioactive ma Jknown 2. being performe	oxic leve:	ls of air	Dorne LIN] rk begins on	

***...}

4.6.4	Is air monitoring being performed any time that new contaminants are encountered that differ from those initial encountered?				
	[IES]			[NO, ELE	PLAIN]
		سه بحرب بحرب	Ni		
-i-	ld Verification	ī	2	3	
4.6.5	 Is air monitor operation is i 		erformed eve	ry time z di:	[faren]
	[YES]			[NO, EXPL	AIN]
		ساكنان	W N		
•					
Fis	eld Verification	1.	2.	3.	

				[NO. EXPLA	IN]
		נוא בא סעוא			
Fiel	d Verification		2.	3.	attration d'union
7 •				have exposures in a personal	
	[YES]			[NO, EXPLA	IN]
		unanain	j		
	And the state of t		***************************************	**************************************	100000000000000000000000000000000000000
w. 1		_	2.	3.	
rie	ld Verification - <u>NOTE</u> : A rep			roach may be t	ised as
	NOTE: A repras it is door monitored challed (h).	resentative sa mented and th enicals are ba	mpling app se selections		s and ced in
	NOTE: A repras it is door monitored characteristics. Are there mandonitoring expensions.	resentative sa mented and th enicals are ba	mpling app se selections	roach may be won of employees criteria state	s and ted in
	NOTE: A repras it is door monitored challenged (h). Are there man monitoring experience (YES)	resentative sa mented and the emicals are ba intenance and quipment?	mpling app se selection sed on the calibration	roach may be to n of employees criteria state on logs on-site	s and ted in t
	NOTE: A representation of the second control	resentative sa mented and th enicals are ba	mpling app se selection sed on the calibration	roach may be to n of employees criteria state on logs on-site	s and ted in
	NOTE: A representation of the second control	resentative samented and the enicals are basented and interance and quipment?	mpling app se selection sed on the calibration	n of employees criteria state on logs on-site (NO, EXPL	s and ted in the for the AIN]
8	NOTE: A representation of the property of the	resentative samented and the enicals are basented and interance and quipment?	mpling app se selection sed on the calibration	n of employees criteria state on logs on-site	s and ted in the for this term.
	NOTE: A representation of the second control	resentative samented and the enicals are basented and interance and quipment?	mpling app se selection sed on the calibration	n of employees criteria state on logs on-site (NO, EXPL	s and ted in the for this term.
	NOTE: A representation of the property of the	resentative samented and the enicals are basented and interance and quipment?	mpling app se selection sed on the calibration	n of employees criteria state on logs on-site	s and ted in the for this term.
8	NOTE: A representation of the property of the	resentative samented and the enicals are based intenance and quipment?	mpling apple selection is a calibration was a calibration on logs on-	n of employees criteria state on logs on-site	s and ted in ? a for to AIN]

4.6.10			
<u>-</u> <u>ਵਹਾਮਕ</u>	NY OF RESPONSES	[YES]	[NO, EXPLAIN]
4.7 Emaling Dr	res and Container:	s - 29 CFR 1910.	120(j)
handling proced appropriate pro with drum or co (e.g., transfer must be on hand	ures must be estable dedures for drum be ntainer contents. operations, sample	lished. Employee endling as well a During all drum ing operations), procedures, drum	ppropriate and specific s must be trained in the s the hazards associated or container operations fire extinguishing equipmes and containers must meet
4.7.1	Are druns and cont	ainers being used	for the clean-up on-site?
. Field	: : ! Verificatión l.	2	3
rieic		rums meet appropr	riate DOT, OSFA, and EPA
	[YES]		[NO, EXPLAIN]
		VKNOWN	
Fiel	i Verification	2	3
4.7.2	Are all drums and before moving?	containers inspe	cted for structural integr
	(YES)	KNOWN	[NO, EXPLAIN]

				[NO, ECPL	AIN]
		inknoc	<u> </u>		
Fiel	d Verificațion	1	2	3 _.	
.7. <u>4</u>	Is there a pot or containers?		z major spi	ll during tra	ensian of dra
([AER]	-		(NO, EXP	LAIN]
				•	
Fiel	ld Verification	1.	_ 2	3	
	If [YES], is to contain and is				
•	[YES]	:	•	[NO, EXP	LAIN]
		UNENCU	14/		
		W. A. V.	· 'V		
.7.5	Is a detection of drums and	n system bei	ing used to		
7.5		n system bei	ing used to		ion activiti
.7.5	of drums and	n system bei	ing used to	or to excavat	ion activiti
	of drums and	n system bei containers o	ing used to on-site pri	or to excavat	cion activiti
Fie	of drums and (YES)	n system bei containers o N/A	ing used to on-site pri	. [NO, EXF	cion activiti
Fie	of drums and (YES)	n system bei containers o N/A	ing used to on-site pri	. [NO, EXF	Ion activiti
Fie	of drums and (YES)	n system bei containers o N/A	ing used to on-site pri	. [NO, EXE	Ion activiti

4.7.3 Are employees warmed of the potential hazards associated with

Field Verification 1. 2. 3. 7.7 Does an instructional program for the employee detail procedures for drim or container opening operations on-site (YES) [NO, EXPLAIN] **UNKNOWN** Field Verification 1. 2. 3. 4.7.7.1 Are only required personnel present during drum container openings and are other personnel at a distance from the operation? [YES] [NO, EXPLAIN] **UNKNOWN** Field Verification 1. 2. 3. 4.7.7.2 Does an instructional program for the employees indicate either that drum openings will occur remotely with pressure relief or that an approprisheld will be placed between employee and the distance during opening? [YES] [NO, EXPLAIN] **UNKNOWN**		container	movin	g operati	on in the ev	site during a ent of a fire	?
7.7 Does an instructional program for the employee datail procedures for drm or container opening operations on-site [NES] [NO, EXPLAIN] **UNICOUNT** Field Verification 1. 2. 3. 4.7.7.1 Are only required personnel present during drum container openings and are other personnel at a distance from the operation? [YES] [NO, EXPLAIN] **UNICOUNT** Field Verification 1. 2. 3. 4.7.7.2 Does an instructional program for the employees indicate either that drum openings will occur remotely with pressure relief or that an appropriately with pressure relief or that an appropriately with be placed between employee and the discontainer during opening? [YES] [NO, EXPLAIN]		<u> </u>			**************************************		and the state of t
Field Verification 1 2 3 (YES) [NO, EXPLAIN] LUNICAPOLING Field Verification 1 2 3 4.7.7.1 Are only required personnel present during drum container openings and are other personnel at a distance from the operation? [YES] [NO, EXPLAIN] LUNICAPUL Field Verification 1 2 3 4.7.7.2 Does an instructional program for the employees indicate either that drum openings will occur remotely with pressure relief or that an appropriately with pressure relief or that an appropriately will be placed between employee and the discontainer during opening? [YES] [NO, EXPLAIN]	Fiel	ld Verifica:	zien		<u> </u>	3.	
Field Verification 1 2 3 4.7.7.1 Are only required personnel present during drum a container openings and are other personnel at a distance from the operation? [YES]							
Field Verification 1. 2. 3. 4.7.7.1 Are only required personnel present during drum container openings and are other personnel at a distance from the operation? [YES] [NO, EXPLAIN] LINTENCENT Field Verification 1. 2. 3. 4.7.7.2 Does an instructional program for the employees indicate either that drum openings will occur remotely with pressure relief or that an appropriately with pressure relief or that an appropriately will be placed between employee and the discontainer during opening? [YES] [NO, EXPLAIN]		[EES]				[NO, EXP	AIN]
4.7.7.1 Are only required personnel present during drum container openings and are other personnel at a distance from the operation? [YES] [NO, EXPLAIN] LINEWOOM Field Verification 1. 2. 3				UNICNO	r√		
container openings and are other personnel at a distance from the operation? [YES] [NO, EXPLAIN] LINKWOUN! Field Verification 1 2 3. 4.7.7.2 Does an instructional program for the employees indicate either that drum openings will occur remotely with pressure relief or that an appropriately with pressure relief or that an appropriately will be placed between employee and the discontainer during opening? [YES] [NO, EXPLAIN]	Fie	ld Verifica	tion	1.	2	3	
Field Verification 1 2 3 4.7.7.2 Does an instructional program for the employees indicate either that drum openings will occur remotely with pressure relief or that an approprishield will be placed between employee and the dicontainer during opening? [YES] [NO, EXPLAIN]		4.7.7.1	conta	iner öper	ings and are	e other perso	
Field Verification 1 2 3 4.7.7.2 Does an instructional program for the employees indicate either that drum openings will occur remotely with pressure relief or that an approprishield will be placed between employee and the dicontainer during opening? [YES] [NO, EXPLAIN]		[YES]		is Nt No	M	[NO, EXP	LAIN]
4.7.7.2 Does an instructional program for the employees indicate either that drum openings will occur remotely with pressure relief or that an appropr shield will be placed between employee and the dontainer during opening? [YES] [NO, EXPLAIN]			· · · · · · · · · · · · · · · · · · ·		274	***************************************	
indicate either that drum openings will occur remotely with pressure relief or that an appropr shield will be placed between employee and the d container during opening? [YES] [NO, EXPLAIN]	Fie	eld Verifica	tion	1	2	3	
		4.7.7.2	indic remo: shie:	cate eith tely with ld will b	er that drum pressure re e placed bet	openings wil lief or that ween employee	l occur an appropri
WY ENOWY.		[YES]				[NO, EXP	LAIN]
				<u> </u>	0WN		
							•

	tis)	?			
	<u> </u>			[NO, EXPLAIN]	
		Linito	WM .		
·					
Field	. Verifidation		2.	3	
	Are sampling preceded, appropriate review as part	Ely docume	nteć and ava	nks, containers, ilable to amploye an?	vaults roi es:
	[YES]			[NO, EXPLAIN]	
		WYKY	CWN		
Field	d Verification	1.	2	3	
4.7.9	-				
	•				
4.7.10					
SUMM	ARY OF RESPONSE	S	[YES]	[NO, EXPLAIN]	

4.7.7.3 Are workers informed not to stand upon or work in

proximity to draws (except when the task requires

4.8 Decontamination - 29 CFR 1910.120(k)

All personnel and equipment should be properly decontaminated prior to leaving a site. The decontamination procedures shall be developed and communicated to employees. The decontamination procedure should, at a minimum, include the following:

- Number and location of decontamination stations;
- Required decontamination equipment;
- Appropriate decontamination methods;
- Procedures to prevent contamination of clean areas, employee contact, and equipment contact;
- Methods and procedures to minimize worker contact with contaminants during removal of PPE; and

 Methods for disposing of clothing and equipment that are not completely decontaminated.

Decontamination methods could involve: (1) physically removing contaminants; (2) neutralizing contaminants by chemical detoxification or disinfection; or (3) removing contaminants through a combination of both physical and chemical means. The types, locations, physical states, and concentrations of contamination present will determine the appropriate method of decontamination.

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In general, for Level B and Level C activities, the initial decontamination steps in the Contamination Reduction Zone (CRZ) are performed by individuals, who are one level of personal protection below those who are exiting from the exclusion zone. All decontamination workers are in a potentially contaminated area and must themselves be decontaminated before entering a clean zone.

4.8.1	Was the decontamination plan communicated to employees and implemented prior to any employee or equipment entering areas where potential exposure to hazardous substances exists?				
	[YES]	[NO, EXPLAIN]			
	inknown				
	•,	And the state of t			
Fiel	ld Verification 1 2	3			
4.8.2	Are standard operating procedures and gused to minimize employee contact with with equipment that has contacted hazar	hazardous substances an			
	[YES]	(NO, EXPLAIN)			
	Clean PPE was seen on to	5 %			
	waste druma.	0			
Fie	ld Verification 1 2	3			
4.8.3	Are decontamination areas situated to a for contamination of uncontaminated em (i.e., is the CRZ located properly)?				
	[XES]	[NO, EFFLAIN]			
		99-194			
Fie	eld Verification 1 2	_ 3			

4.8.4	Are all employees, clothing, and equip properly prior to leaving a contaminat	
	(III) but	[NO, ETPLAIN]
	decon pricedures are re	+ being
	Jelieved as written in H	45P.
71=1	d Verification 1 2	3
	Are all protective clothing and equipa cleaned, laundered, maintained, or rep maintain effectiveness?	
	[YES]	[NO, EXPLAIN]
	winewa	
	· · · · · · · · · · · · · · · · · · ·	grown and the gr
Fie	ld Verification l 2	3
4.8.6	Do established equipment drop-off, decorated protective clothing doffing procedures exposures (i.e., is contaminated protection of the protection of the contaminated prior to removal by the	s minimize employee ective clothing bein
	[YES]	[NO, EXPLAIN]
	No equipment drop-off	arei.
	Ro equipment drop-off Clothing not decorred pri	an to renoval.
Fie	ld Verification 1 2	
4.8.7	Are all equipment and solvents used fi disposed of or decontaminated properl	
	[YES]	[NO, EXPLAIN]
	NIA	
		A CONTRACTOR OF THE CONTRACTOR

4.8.8	Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual					
	cleam towels, and s work clothes avails		Facilities for stree 29 CFR 1910.141?	et znč		
	[YES]		[NO, EXPLAIN]			
		NK				
Fiel	.d Verification 1.	2.	3			
4.8.9	Are unauthorized estaff) denied acce equipment, and cha	ss to decontamina	dministrative and so	uppert mination		
	[YES]		[NO, EXPLAIN]			
	un	KNOWN				
Fie	ld Verification 1.	2	3.			
4.8.10						
			•			
4.8.11	Milan internal on Professionals - Terminal on State of the Control					

SUM	MARY OF RESPONSES	[YES]	[NO, EXPLAIN]			

in a minimum, the energetry response section of the EAS must include the fallowing:

- · Fament wates, times of personally and communications
- Safe distances and places of reinger
- · Tile seeming and commit:
- Emmarim routes and procedures:
 - Description procedures that are not already sowered elsewhere in the EASE;
- Programmy medical transmit and first aid:
 - Energency electing and response procedures;
- The Procedure for critique of response and follow-up;
- And the end to examine the companies of the companies o
- Site topography, layout, and prevailing weather conditions; and
- * Procedures for reporting incidents to local state, and federal governmental agencies.

In general, the emergency response section should be a discrete section of the HASP and should be periodically reviewed in response to new or changing site conditions or information. The aforementioned elements of the emergency response plan should be verified by the EPA Audit Guidelines user in the field.

4.9.1 Are personnel roles, lines of authority, and communication among employees evident in the field (e.g., is the person who would be in charge during an emergency incident clearly identifiable?)

[YES]

Whe TAT representative was unaware

of the commercial response placedures

Field Verification 1. _____ 2. ____ 3. ____

5.4	prevention?	emonstrate er	ergency recogniti	on a
	[YES]		[NO, EXPLAIN]	
	<u> </u>	WM		-
. Fie	eld Varification l	2	3	-
9.3	Are site security and	control neasu	res evident in the	fi
	[YES]		[NO, EXPLAIN]	
				-
Fi	eld Verification l	2	3	_
4.9.4	Are employees aware of	evacuation r	outes and procedu	ces?
ίλ	ES]		[NO, EXPLAIN]	
ţ -	Luknewn		(110)	
-				
Fi	eld Verification 1.	2	3.	
4.9.5	Are employees familiar	with deconta	mination procedur	es?
	[YES]		(NO, EXPLAIN]
	unknion	~~		
Fi	lald Varification 1.	2.	3	manufit
4.9.6	Are emergency medical employees?	treatment and	i first aid availa	bla
	[YES]		(NO, EXPLAIN	[]
7	ield Verification l	2	3	

4.9.7	Are emergency alerting and response procedures addressed in evidence in the field?	
	[YES] [NO, EXPLAN]	
	alerting) was found; but we no explaination	١.
Fiel	d Varification 1 2 3	
4.9.8	Is a procedure in place to enable field personnel to critique a response and to provide follow-up actions in the field?	
	[YES] [NO, EXPLAIN]	
	mknomy	
Fie	ld Verification 1 2 3	
4.9.9	Are PPE and emergency equipment readily available to employees in the field?	
	[YES] [NO, EXPLAEN]	
	Decon shower wasn't operating	
Fie	ld Verification 1 2 3	
4.9.10	Are procedures in place for reporting emergencies to local, state, and federal governmental agencies?	
	[YES] [NO, EXPLAIN]	
	unknown	
Fie	eld Verification 1 2 3	
STR	MARY OF RESPONSES [YES] [NO, EXPLAIN]	

4.10. - <u>Tll-instict</u> - 29 CFR 1910.120(a)

._202

The provisions for illumination of hazardous waste operations are established in OSHA's industry requirements for illumination at construction sites, 29 CFR 1926.36. For general work areas, five foot candles is the recommended minimum illumination intensity for site work. If work may be performed in diraly lighted areas, the HASP should provide contingency measures for additional on-site lighting, along with a recommendation for the use of a light meter to determine illumination intensity.

	determine illuminat			- V.
4.10.1.	If site work is and additional lighting		ighted areas, is	
	(YES)		[NO, EXPLAIN]	
	NIA			
	Management of the Control of the Con			
Fiel	d Verification 1.	2.		
4.10.2	-			
		,		
4.10.3				
	TOTAL CONTRACT CONTRA			
SUM	MARY OF RESPONSES	[YES]	[NO, EXPLAIN]	_
4.11. Sani	itation at Temporary	Workplaces - 29 C	FR 1910.120(n)	
site, the use:	ne field verification should seek to ans itions on-site.			
4.11.1	Is potable water 1	abeled as safe for	drinking?	
	[YES]		(NO, ETPLAIN)	
	UNK	NowN		

Fia	ld Verification 1.			

				[NO, EXPLAIN]
		LUKNOW	1 N N	
			***************************************	<u> </u>
Fiel	ld Verification			<u> </u>
3,	If there are minimum of on	fever than 2 te toilet ava	O employees ilable?	on-site, is there
([YES].			(NO, EXPLAIN)
		n 1	2.	3
Fie	ld Verification			
	NOTE: Mobile to equivalent requirements If there are	e work crews to toilet faci of this para	with transp llities are agraph for s	portation readily a exempt from the sanitation facilities on-site, have a por each additional
	NOTE: Mobile to equivalent requirements If there are toilets and t	e work crews to toilet faci of this para	with transp llities are agraph for s	portation readily a exempt from the sanitation facilities on-site, have a
11.4	NOTE: Mobile to equivalent requirements If there are toilets and the	e work crews toilet faci of this para greater than urinals been	with transpilities are agraph for some some some some some some some some	cortation readily a exempt from the sanitation facilities on-site, have a corteach additional [NO, EXPLAIN]
11.4 Fie	NOTE: Mobile to equivalent requirements If there are toilets and the employees? [YES]	e work crews toilet faci of this para greater than urinals been n 1.	with transpilities are agraph for some 20 employed provided for 20.	cortation readily a exempt from the sanitation facilities on-site, have a corteach additional [NO, EXPLAIN]
11.4 Fie	NOTE: Mobile to equivalent requirements If there are toilets and the employees? [YES] Ald Verification Is food hand	e work crews toilet faci of this para greater than urinals been n 1.	with transpilities are agraph for some 20 employed provided for 20.	oortation readily a exempt from the sanitation facilities on-site, have a or each additional [NO, EXPLAIN]

4.11.6	If temporary sl ventilated, and		erters are p	resent, are they h	eate
	[YES]		,	(NO, EXPLAIN)	
	and the second s	NIX	***************************************		
				-	
Fie	ld Verification	1.	2	<u> </u>	
		rmit emplo		ardous substances ve hazardous subst	
([YES]		-	[NO, EXPLAIN]	
Fie	eld Verification	1.	2	3.	
4.11.8					
4.11.9			ang ka amanan ang ka ang k		
SU	MARY OF RESPONSE	:s	[YES]	[NO; EXPLAIN]	

BBD - 1.1059

FIELD SITE SAFETY INSPECTION FORM

1. SITE NAME BAYONNE BARREL AND DRI	LLL	• •	TDD.# <u>02- 94</u> 0	07-05 (5007
2. LOCATION NEWARK, NEW JEESEY		INSPECTOR	TAMBLET ; AL OCA		
CERTIFICATION OF PERSONNEL					
1. All WESTON personnel on site are currently active on C 2. Site Safety Officer and Site Supervisor are qualified? NI		tion List? X		NOT IMSDE	icte0
的数据数: MRDICAL AND FIRST AID	х/о	் இழுந்தத்தி PRRSONAL PROT	TICTION	X/0	
1. Pirst aid kits accessible & identified?	X	1. All equipment meets ANSI/OSII/I!P.		MI	
2. Progressor evelsafety washes available?	X	2 Level of protection (LOP) established	-,17	V	

主要数据设计 MRDICALTAND FIRST AID: 4.	X/0	- 「劉文海」では、PERSONAL PROTECTION (1997) (1997)	X/0
1. Pirst aid kits accessible & identified?	X	1. All equipment meets ANSI/OSII/HPA criteria?	MI
2. Emergency cyc/safety washes available?	XO	2. Level of protection (LOP) established?	X
3. Daily first aid logs up to date?	NII.	3. Site control zones clearly designated?	0
4. Pirst aid kits inspected weekly?	NI	4. All employees know their LOP scheme?	0
5. At least two first aid trained persons on site at all times when working?	0	5. OSIIA respirator program in place?	ИТ
SITE SAPETY/EMERGENCY PLANS		6. Employees FIT tested for respirators? On site? FIT tests current?	X
1. Safety plan posted on site and given to each person?	X	7. Defective equipment tagged out?	NZ
2. Initial site safety plan meeting held and documented before work begins?	X	8. Breathing air Grade "D" certified?	X
3. Hazardous materials information available for all hazards?	00	9. Sufficient quantities of equipment?	hr
4. Designated, qualified site health and safety coordinator on site?	X	10. Safety instrumentation maintained and calibrated? Maint. & Cal. logs up to date?	X
5. Employees trained in toxicology/ exposure risks?	X	作用的特殊的表面,COMMENTS。 Balletise Free	
6. Emergency telephone numbers posted?	×	D GENERATOR MOT ON THAT RUMS EMERGENCY SHOW	و
7. Emergency routes designated?	X	3 NOT ACIEFED TO TAY REPRESENTATIVE	
8. Emergency plan and signal reviewed with all persons?	Ø	1 HAZCAT MSAS'A NOT AVAILABLE	

(1) TAT EMPLOYEES OF TENTED; EVEN EMPLOYEES NOT CHECKED

AND		DECONTAMINATION OF THE STATE OF	
1. Daily safety meetings? x Documented?	X	1. Decon system set up on site? X Used? X According to safety plan?	0
2. Question and answer time available to all site personnel?	NI	2. Contamination zone and corridor clearly delineated?	0
3. All employees instructed in hazardous materials handling practices?	NI	3. Appropriate waste receptacles available for all waste?	X
4. New personnel to site receive: Copy of safety plan? X Site orientation? Review of: LOP, DECON, Zonessite specific health and safety hazards?	0	4. Receptacles properly closed at end of day?	NI
HERE HOLDING FIRE PREVENTION/PROTECTION HOLDING HERE		5. All decon liquids properly contained and disposed of?	NI
1. Hot work permits required?	0	6. All wastes disposed of according to approved plan?	NI
2. Smoking restricted to designated area?	ИĽ	7. All personnel received decon training?	N.T.
3. Pire Innes established and maintained?	NI	8. All reusable personal protective gear deconned and disinfected at least daily?	NI
4. Planmable/combustible liquid dispensing transfer systems grounded & bonded?	14		
5. Proper flammable materials storage?	NI	→表現を認め、WALKING AND WORKING SURFACIES 。	
6. Fire alarm established, workers aware?	0	1. Accessways, stairs, ramps and ladders free of ice, mud, snow, or debris.	
7. Lucation and use of fire extinguisher known by all personnel?	X	2. Ladders exceed maximum length?	
8. Pire extinguishers cheeked before each shift? Inspected, monthly?	Nt	3. Ladders used in passageways, doors, or driveways?	
9. fire extinguisher appropriate for fire hazard potential?	X	4. Broken or damaged ladders tagged out?	
10. Combustible materials segregated from ignition sources?	X	5. Metal ladders prohibited in electrical service?	
(14.1.) (1.1.) (1.1.) (1.1.) (1.1.) (1.1.) (1.1.) (1.1.) (1.1.) (1.1.) (1.1.) (1.1.) (1.1.) (1.1.) (1.1.) (1.1.)		6. Safety feet on straight and extension ladders?	
1. Slings, chains, and rigging inspected per OSHA and documented?		7. Stairways, floor and wall openings guarded?	
2. Damaged slings, chains or rigging tagged out and reported?		8. Elevated work areas guardrailed or safety clinined?	
3. Employees are instructed and keep clear of suspended loads?		9. Floatation devices worn when working on or over water?	
policientes, andre présente COMMENTS · · · · · · · · · · · · · · · · · · ·		10. Toe hoards on overhead work surfaces?	
		11. Mobile offices/labs have fixed stairs and handrails?	×
		12. Work areas kept free of debris and equipment?	X
		COMMERCS	

【独議注IIXCAVATIONS, CONFINED SPACES, TUNNELS 東京県	<u>. </u>	MOTOR VEHICLE/HEAVY EQUIPMENT	
1) Excavations sloped or shored to prevent cave-ins?	_/_	1. Inspected before each use?	
2. Shoring approved by Engineer?	1	2. Operators licensed for equipment used?	
3. Guardrails or fences placed around excavations near walkways or roads.		3. Unsafe equipment tagged out and repolled?	
4. Excavation locations visible at night?		4. All safety appliances/guards in place?	
5. Utility check performed and documented before exervation or drilling?		5. Shut down for fueling?	
6. Ladders available to trenches more than 4 feet deep and at a minimum, 25' intervals along a fence?		6. Equipment with back up alarms or spotter deed if 360 percent visibility restricted?	
7. Excavated material is a Jeast 24" from the edge of all trenches?		7. Londs are secure before transport?	
8. Confined space entry permit procedure in place and communicated to all?		8. Roads and structures inspected for load enpacity per vehicle weights?	
9. Employee training includes CSI hazards?		9. Riders prohibited on heavy equipment?	
10. Tunnels are adequately veryinted?	•	HLIECTRICAL	
11. There is proper lighting!		1. Warning signs indicated high voltage, 250V or greater, present and location?	
2. Tunnel lested for \$2_, CO_, CGI Tox?		2. Electrical equipment and wiring properly guarded?	
13. Communication available inside to out?		3. Electrical lines, extension cords and eables guarded and properly maintained?	
14. No flammayles or combustibles in tunnel?		4. Extension cords kept out of wet?	
15. CSP projectures used for tunnel?		5. Damaged equipment tagged out?	
6. CSP procedure checklist: Safety Watch? Safety watch projected ame as enterers? Safety line? Appropriate harness? Continuous monitoring for 02, CGI & Tox Level B or constant ventilation and nonjoring?		6. Underground electrical lines located and indicated?	
7/ Work does not begin inside any tank vessel or other container atil here is no possibility lines or electrical or equipment could be ctivated? Lines are discontinued or blanked out fuses are pulled?		7. Overhead electrical lines de-energized or elevated work platforms, work areas, booms or ladders creeted so no contact can occur with electrical lines?	
TOTAL COMMINTS A STATE OF THE		8. A positive electrical lock-out system is used whenever work is done on or in electric equipment or electrically activated equipment?	/
		是不是認識的。不在是 COMMENTS TO A LOT	

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1			
WELDING AND CUTTING TO THE SECOND		্ত্ত COMPRESSED GAS CYLINDERS/PRESSURIZED LINES	
1. Fire extinguishers present at all welding and cutting operations?		1. Breathing air cylinders charged only to prescribed pressure?	X
2. Confined spaces, tanks, pipelines tested before welding or cutting?		2. No other gas system can be mistaken for breathing air? <a> Fittings prohibit cross connection?	×
3. Hot work permitting system in use?		3. Cylinders segregated appropriately in controlled, protected but well ventilated areas?	X
4. Proper helmets and shields (including proper tint for UV protection) used?		4. Smoking prohibited in storage areas? Signs so stipulating this are in place.	NI
5. Properly grounded?		5. Cylinders stored upright and secure?	X
6. Fuel gas and 02 gas cylinders stored at least 20' apart? Stored upright and secured?		6. Cylinder caps in place when stored (not in use) or when cylinders moved?	×
7. Only trained welders permitted?		7. Fuel gas and 02 minimum 20' apart when stored?	
繼續網絡的表示的影響 MISCELLANEOUS (1997) 网络克西斯森利德森		8. Pressurized air or waterlines are securely connected?	ტ
1. Tools and other equipment (portable) are stored away from walkways, roads or driveways where they cannot fall on or he fallen over by site personnel?	*	9. All site personnel know never to step neross a pressurized line?	NI
2. Overhead hazards are noted, communicated to all and labelled as needed?		10. Gas or other hazardous lines are labelled appropriately?	
3. Hard hats, eye, hearing and protection areas are defined and signs in place?	Х	COMMINTS A STATE OF THE PROPERTY OF THE PROPER	
4. Hard hat, eyes and head protection is used where appropriate?	0		
5. Signs or labels (as shown on the attachment) are in place or appropriate training received?		,	
6. Copies of contracts with elient and subcontractors are onsite, WESTON's role regarding site health and safety responsibilities are clear in these and in the minds of the site manager(s)?		,	
7. Subcontractors have received approved copies of their safety plan or have signified their intent to conform with WESTON's safety plan? This intent has been signed by all site personnel and a subcontractor company officer?			
8. Site managers understand their responsibilities for subcontractors' conformance with all OSHA and other health and safety requirements?			
9. Site managers know what to do in the event of an OSHA Inspection?			

1090 King Georges Post Road, Suite 201 Edison, NJ 08837

Phone: 908-225-6116 Fax: 908-225-7037

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION EPA CONTRACT 65-WO-0036

DATE:

August 10, 1994

TO:

Joe Cosentino, USEPA

FROM:

Tamre Noblet, TAT-RSQ &

Mark Denno, TAT-QC MAD

THRU:

6...

Carl Kelley, TATL $/\mathcal{CD}$

SUBJECT:

SITE AUDIT OF BAYONNE BARREL AND DRUM

On August 1, 1994, Tamre Noblet and Mark Denno of the Region II Technical Assistance Team (TAT), conducted a site audit of documentation procedures and health and safety procedures in use at the Bayonne Barrel and Drum site. The following summarizes the results of the general-site audit:

1. Site Logbook

The site logbook was well maintained and up to date, and contained sufficient documentation to construct a chronology of events for each day. Recommend that directives given by the OSC be included in the site logbook.

Site Entry/Exit Logs

TAT not tasked to maintain site entry/exit logs. The logs are maintained by ERCS for personnel entering and leaving the site. Recommend that site logs be maintained by an independent auditor to ensure no mischarging on 1900-55's.

Hot Zone Entry/Exit Logs

TAT not tasked to maintain hot zone entry/exit logs. The logs are maintained by ERCS. Recommend that hot zone entry/exit logs be maintained by an independent auditor.

4. Instrument Calibration

TAT completes daily calibration logs of the air monitoring instruments utilized.

Roy F. Weston, Inc.

MAJOR PROGRAMS DIVISION

In Association with Foster Wheeler Enviresponse, Inc., Resource Applications, Inc., C.C. Johnson & Malhotra, P.C., R.E. Sarriera Associates, and GRB Environmental Services, Inc.

also evident from this inspection that TAT could be providing an expanded role in the monitoring of ERCS contractor activities. The following cutlines some of the ways to provide for additional/expanded monitoring:

1. Clarification of TDD Requirements

Element 3 of the TDD requires TAT to provide monitoring of the ERCS contractor. Upon receipt of the TDD, the TAT should have had the OSC clarify what oversight activities were specifically required. At the time of this inspection, the TAT was unable to relate what the OSC's needs and priorities were concerning ERCS oversight.

2. Monitoring of ERCS Air Monitoring

In addition to the air monitoring being provided by TAT, the Health and Safety Plan directs ERCS to perform periodic air monitoring. The TAT could be performing quality control checks of the air monitoring procedures and results for the OSC, to ensure that the ERCS monitoring is valid and useful. This would require the TAT to receive and review ERCS calibration logs and monitoring logs.

3. Monitoring of Hazardous Characterization Procedures

The TAT could be providing the OSC with better monitoring of the hazardous characterization procedures, including a review of all the hazardous characterization results and monitoring 10% of the samples being characterized. This would help ensure proper characterization of on-site contaminants.

4. Daily Progress Reports

The TAT could be providing more complete daily progress reports to the OSC if he was aware of ERCS specific daily activities. This could be accomplished if TAT were routinely included in the preproduction, postproduction, and safety meetings.

Attachments

cc: L. Guarneiri, DPO

INITIAL POLLUTION REPORT

CEC. Carrier Com

I. HEADING

Date:

July 26, 1994

From:

Joseph Cosentino,

To:

J. Fox, EPA

W. Muszynski, E

K. Callahan, EPA

J. Marshall, EPA

W. Mugdan, EPA

J. McVeigh, EPA

M. Seidenberg, EPA

J. Frisco, EPA

G. Pavlou, EPA

.R. Salkie, EPA

G. Zachos, EPA

J. Witzowski, EPA

K. Delaney, NJDEP

D. Triggs, NJDEP

TAT

Subject: Bayonne Barrel and Drum. Newark,

Essex County, New Jersey

POLREP No: One (1), Initial Polrep

II. BACKGROUND

Response Authority: CERCLA

NPL Status: Non-NPL

Site Number: 9J

Action Memorandum Status: Verbal Authorization granted

on 7-14-94

Start Date: 7-14-94

III. INCIDENT INFORMATION

On July 14, 1994, OSCs, Joseph Cosentino, Nick Magriples and Bob Montgomery conducted a site visit. A fire had recently occurred at the facility. Discussions with the Newark Fire Department revealed that the fire had occurred in the former office building of Bayonne Barrel and Drum on July 8, 1994. The fire, believed to have been started by vagrants, destroyed several building near the entrance to the site but did not appear to impact any areas known to contain waste.

There were no security guards present at the facility and

the site accessible through openings in the fence. A scavenger was observed sifting through debris and rubble for scrap metal. The main gate, noted to be closed with a lock and chain upon arrival, was subsequently opened by the scavenger. An empty box trailer found in one of the buildings was determined to be stolen and reported to the Newark Police department.

The drums and ash previously contained in a building were accessible and exposed due to the collapse of a makeshift plywood wall. The ash pile is uncovered and the drums appear to be in very poor condition. There are an estimated 200 to 250 drums located within this building (designated as building No. 2).

The area near the incinerator, known to be contaminated with organics, PCBs and heavy metals, was flooded and appears to have been accessed by a heavy vehicle.

One of the above ground storage tanks, known to contain an estimated 1,400 gallons of a liquid substance, appears to be of poor structural integrity. Several areas around and near the tanks, including the opening of an under ground storage tank, appear to be heavily stained.

The tire piles on site have increased substantially over the last couple of years. There are numerous piles of what appears to be a mixture of soil and construction debris on the site.

Between the piles of "empty" drums located at the rear of the facility several drums containing a dark oil-like substance were found. These drums appear to be in fairly good condition. However, due to the removal of their bungs and the infiltration of rainwater and/or pressurization due to elevated ambient temperatures have leaked a substantial portion of their contents onto the ground surface.

IV. REMOVAL INFORMATION

A. Actions Taken

- 1. On July 14, 1994, a verbal funding authorization was received from Kathleen Callahan, Director of the Emergency and Remedial Response Division, to conduct the emergency response activities necessary to stabilize and remediate the threats to human health and the environment present at the Bayonne Barrel and Drum Site. A total project ceiling of \$200,000 with a mitigation ceiling of \$150,000 was authorized.
- 2. An Emergency Response Clean-up Services (ERCS)

contractor was immediately activated and site security (24 hour guard) established.

- 3. On July 15, 1994, the OSC and ERCS met on site to discuss the anticipated tasks and logistics of the response. A site specific Work Plan and Health and Safety Plan were requested.
- 4. On July 18, 1994, equipment and manpower were mobilized to the site and site preparation began. The primary activities were to establish an office trailer, obtain electric and telephone service, establish a decon area and laboratory trailer and clear the debris from along eastern boundary of the site to facilitate the movement of equipment and manpower.

In addition, a Detective from the Newark Police Department's Major Crimes Bureau assisted the OSC with having the owner/operator repair and remove the stolen box trailer.

- 5. On July 20, 1994, ERCS began removing drums from building No. 2 to building No. 1 where they were remotely punched, sampled, overpacked, marked and staged. To date, 90 drums have been removed from the building. It appears that many of the drums have leaked as evidenced by numerous stains and the pooling of material on the floor of the building. Several drums were found to be empty. Field hazcatting results indicated the presence of chlorinated organics, non chlorinated organics, flammable liquids, oxidizers and fuming acids.
- 6. Several local, state and federal law enforcement agencies have contacted the OSC concerning the site and EPA's activities.

B. Next Steps

Activities to stabilize the site will continue. These activities will include maintaining 24 hour security, repairing of the fence and addition of gates, the stabilization of the ash piles, the continued collection of drummed material and removal of material in the tanks.

US ENVIRONMENTAL AGENCY, REGION IN PROGRESS POLLUTION REPORT

I. HEADING

DATE:

TO:

Joe Cosentino, ASCHOOL Contins W. Muszynski

K. Callahan, EPA

J. Marshall, ERA

W. Mugdan, EPA

J. McVeigh, EPA

M. Seidenberg, EPA

J. Frisco, EPA

G. Pavlou, EPA

R. Salkie, EPA

G. Zachos, EPA

J. Witzowski, EPA

K. Delaney, NJDEP

D. Triggs, NJDEP

SUBJECT:

Bayonne Barrel-and Drum. Newark,

Essex County, New Jersey

POLREP No: Two (2), Progress POLREP

II. BACKGROUND

Site Number: 9J

Response Authority: CERCLA

Delivery Order Number: 2001-02-039

NPL Status: Non-NPL

Action Memorandum Status: verbal authorization granted on July 14, 1994, draft Action Memo was submitted on

July 26, 1994

Start Date: July 14, 1994

III. INCIDENT INFORMATION

See initial POLREP

IV. REMOVAL INFORMATION

Actions Taken

ERCS continued to work on the removal and stabilization of the drums in building number 2. To date 228 drums have been removed from the building, sampled, their labels and marking documented (if any), overpacked, marked and staged. Field analysis (hazcatting) indicates the presence of organics, corrosives, oxidizers and ignitables.

Because the site has a documented history of PCB contamination, a composite matrix screening for PCBs has been established and initiated. If successful the cost of PCB analysis will be reduced by an estimated 40%.

- Health and Safety Audits were conducted by both TAT and ERCS personnel.
- Efforts to determine the present and legal owner/owners of the property are being made by ORC and the Program Support Branch.

B. Next Steps

Activities to secure and stabilize the site will continue. These activities will include the collection of drummed material, the removal of material in the tanks, stabilization of the ash piles, repair of the fence and addition of gates and maintaining 24 hour site security.

A community relations plan and administrative record are presently being drafted and will be available shortly.

C. Key Issues

Due to the deteriorated condition of the drums and leakage onto the building floor the collection of drums from building number 2 has been slowed. Measures to control and collect leaked material have been instituted.

Above average temperatures and humidity has required the institution of a heat stress monitoring program and frequent breaks for the crew. This has significantly slowed response activities.

V. COST INFORMATION

Mitigation Contra TAT Intramural	ecting	\$91,815 \$6,200 \$4,500
Total Project ceiling Percent of Funds	Remaining	\$102,515 \$200,000 49%

US ENVIRONMENTAL AGENCY, REGION II

PROGRESS POLLUTION REPORT

I. HEADING

Date:

August 10, 1994

From:

Joe Cosentino,

To:

W. Muszynski, EPA K. Callahan, EPA J. Marshall, EPA W. Mugdan, EPA J. McVeigh, EPA

M. Seidenberg, EPA

J. Frisco, EPA G. Pavlou, EPA R. Salkie, EPA G. Zachos, EPA J. Witzowski, EPA

K. Delaney, NJDEP D. Triggs, NJDEP

TAT

Subject: Bayonne Barrel and Drum. Newark,

Essex County, New Jersey

POLREP No: Three (3), Progress POLREP

BACKGROUND II.

Site Number: 9J

Response Authority: CERCLA

Delivery Order Number: 2001-02-039

NPL Status: Non-NPL

Action Memorandum Status: verbal authorization granted on July

14, 1994, Action Memo (final) signed by OSC August 9,

1994

Start Date: July 14, 1994

III. INCIDENT INFORMATION

See initial POLREP

IV. REMOVAL INFORMATION

Actions Taken Α.

1. ERCS completed the removal and stabilization of the drums in building number 2. A total of 357 drums were removed from the building, sampled, their labels and marking documented (if any),

overpacked, marked and staged. A sweep of the remaining building for additional drums was conducted and several drums containing material recovered. In addition, ERCS began the removal of non-RCRA empty drums from the "empty" drum storage area.

Because the site has a documented history of PCB contamination, a composite matrix screening for PCBs has been established and initiated. If successful the cost of PCB analysis will be reduced by an estimated 40%. Data received from the first round of samples indicate that the required detection limit of 2 ppm could not be achieved due to the matrix interferences displayed by the wastes. Alternative analytical methodologies were discuss and approved by the OCS.

- 2. Concerns over high particulate levels within the work zone, indicated by particulate field screening instruments (mini-ram), a real time air sampling program was initiated and samples collected were analyzed for total fibers, PCBs, lead and cadmium. The Results do not indicate any levels in excess of regulatory concern or permissible exposure limits (PEL).
- 3. Efforts to determine the present and legal owner/owners of the property are being made by ORC and the Program Support Branch. A title search has been completed.

B. Next Steps

Contingent upon the approval of the action memorandum activities to secure and stabilize the site will continue. These activities will include the collection of drummed material, the removal of material in the tanks, stabilization of the ash piles, repair of the fence and addition of gates.

A community relations plan and administrative record are presently being drafted and will be available shortly.

C. Key Issues

The ERCS and TAT contractors and equipment will be demobed until addition funding is approved. Site security will be maintained until the funds remaining are depleted.

V. COST INFORMATION

Mitigation Contracting TAT Intramural	\$130,815 \$8,345 \$5,500
Total	\$144,660
Project ceiling	\$200,000

DATE:

Bayonne Barrel and Drum RCRA Sampling Results (NJD009871401)

Louis DiGuardia, Geologist L. D. M. 1 5/16/16 Source Monitoring Section

ROM:

το.

William K. Sawyer, Attorney
Waste and Toxic Substances Branch

Thru: John Ciancia, Chief

Source Monitoring Séction

Richard D. Spear, Chief

Surveillance and Monitoring Branch

On February 17, 1984 a RCRA sampling survey was conducted at Bayonne Barrel and Drum by Joseph Cosentino, Karen Egnot, Steven Hale, Brian Kovak and myself. This survey was conducted at the request of the Waste and Toxic Substances Branch to determine if any actions were taken by Bayonne Barrel and Drum in order to comply with the complaint and compliance order issued May 20, 1982.

The facility located at 150 Raymond Boulevard in Newark, New Jersey was formerly in the business of cleaning and reconditioning dirty and damaged drums. The facility encompasses an area of approximately 20 acres. At the time of the inspection, operations had ceased and the company had filed for bankrupcy.

Drum cleaning operations formerly involved both closed head and open head drums. In closed head cleaning, chains and a caustic solution were used to wash out previous material in the drums. The spent solution drained through an oil-water separator into a 5,000 gallon under ground holding/settling tank and was then pumped into a 60,000 gallon above ground holding/settling tank. The liquid was decanted to the sewer under a permit to the Passaic Valley Sewage Commission. Open head drums were placed on a conveyor belt and moved through an incinerator which burned residue out of the inside. This residue material was collected in two subsurface holding/settling tanks. Approximately 40,000 lbs of incinerator ash and sludge was generated monthly.

Samples were taken from the following areas of concern:

1) Under ground 5,000 gallon holding/settling tank

Sampling \$65189 - aqueous sample collected from the tank.

Sampling \$65190 - composite soil sample collected from the area around the tank.

2) Oil/Water Separator

Sample #65188 - aqueous sample collected from oil separator trench.

3) Subsurface tank near incinerator

Sample #65191 - aqueous sample collected from the subsurface tank. Sample #65192 - composite soil sample near subsurface tank.

4) Incinerator ash waste pile

```
Sample #65184 - composite sample taken from ash pile

Sample #65185 - " " " " " "

Sample #65186 - " " " " " "

Sample #65187 - composite soil sample taken around ash pile
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Sampling equipment and containers were prepared according to EPA standard procedures prior to sampling. A total of nine (9) samples were taken, three (3) aqueous, three (3) soil, and three (3) from the ash pile.

Aqueous samples were analyzed for RCRA characteristics (ignitability and corrosivity) and non-volatile (NVOA) and purgeable (POA) organic priority pollutants. Soil and ash samples were analyzed for the characteristics of EP toxicity (metals, herbicides and pesticides) as defined in RCRA, as well as metal analysis, and priority pollutants (NVOA, POA). All analyses were performed in EPA's Edison, New Jersey laboratory. EPA standard procedures were followed for the collection of samples throughout the survey.

Sample results are given in Tables I thru VI. Results indicate that all samples contained a number of organic compounds. In the incinerator ash waste pile, EP toxicity limits for metals were exceeded for both cachium and lead. Also, the metals scan showed high levels of heavy metal contamination in all ash and soil samples.

In addition to the above analysis, PCB's in measurable quantities were detected in sample #65187, soil by ash pile.

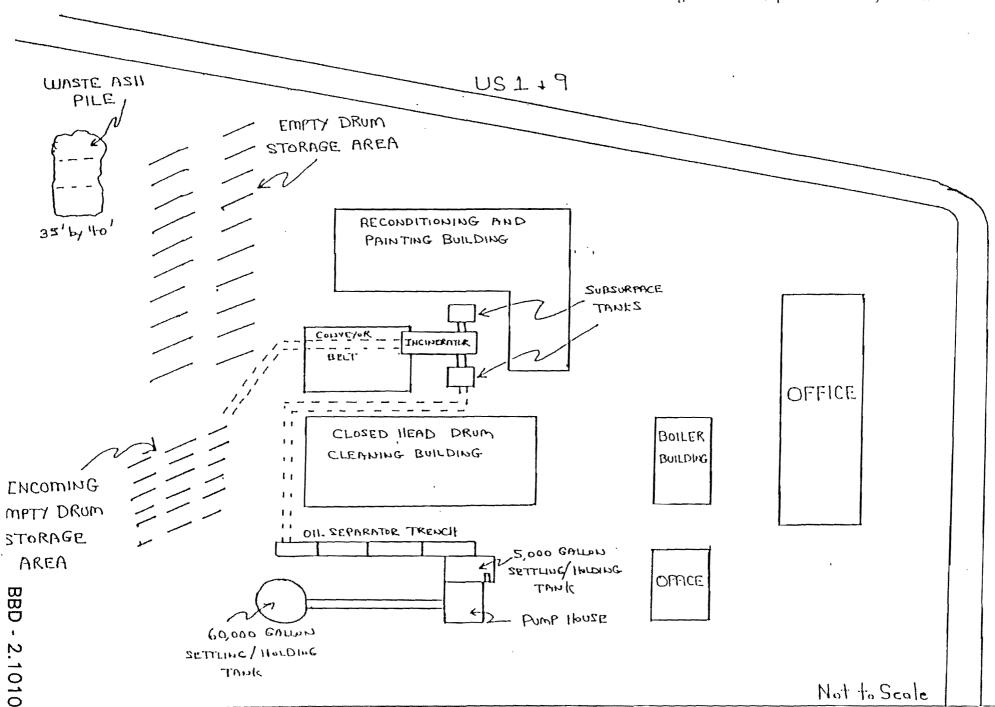
Attachments:

Figure I - Map of Facilities Grounds

Figure II - Sample Location Map
Tables I-VI - Analytical Results

Appendix I - Photographs

Appendix II - Receipt of Samples



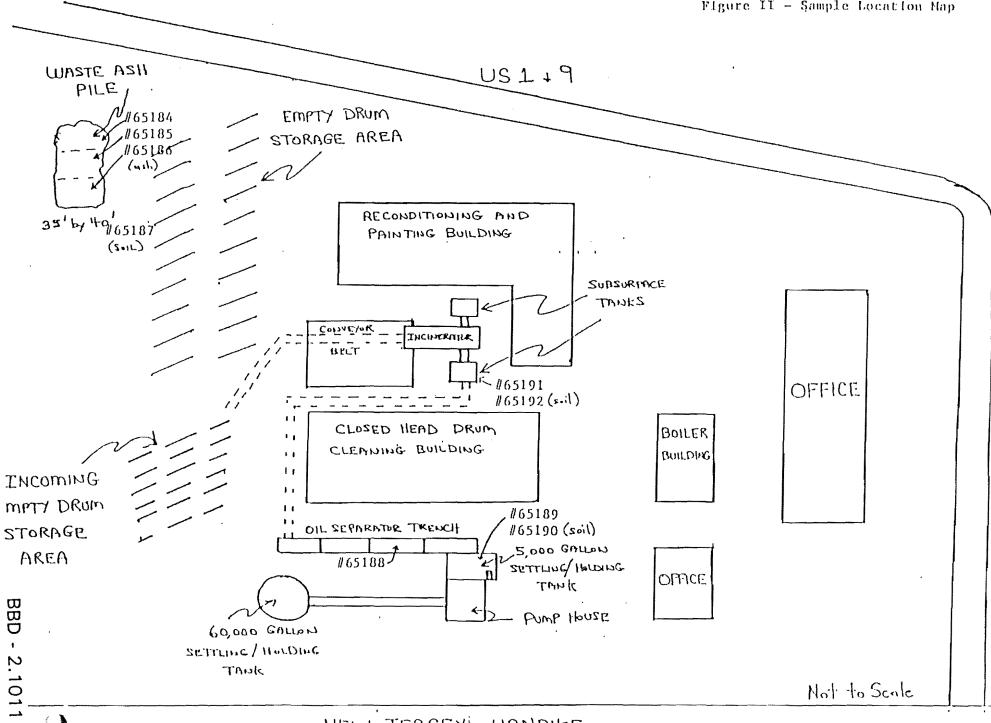


Table I

Comparison of Waste Analysis to Characteristics of Corrosivity and Ignitability

Parameter	Maximum Allowable Limit	65188	65189	65191
Ignitability	> 140°F	> 140°F	> 140°F	> 140°F
Corrosivity	> 2.5 S.U.	*	*	6.93 s.u.

S.U. - Standard Units

65188 - Oil Separator

65189 - 5000 Gallon Tank

65191 - Subsurface Tank by Incinerator

* - No Analysis Performed

	Maximum Concentration						
Parameter	for EP Toxicity mg/l	65184 mg/l	65185 mg/l	65186 mg/l	65187 mg/l	65191 mg/l	6519:
Arsenic	5.0	.02K	.02K	.02K	.02K	.02K	.0
Bariun	100.0	4.0	5.3	1.3	1.5	.15	1.7
Cacmium	1.0	.99	1.2	.17	.08	.002K	.04
Chromium	5.0	.02J	.015	.04	.008K	.02J	.085
Lead	5.0	7.6	10.0	2.4	.25	.04	.10
Mercury .	0.2	.0002K	.0002K	.0002K	.001	.0002K	.0002%
Selenium	1.0	.008K	.02J	.008K	.008K	.009J	.008K
Silver	5.0	.002K	.002J	.002K	.002J	.002K	.002K
Endrin	.02	.000008K	.000008K	.000008ĸ	.000008K	.000008k	.000008
Lindane	.4	.00003	.00004	.00023	.00066	.00002	.000003
Methoxychlor	10.0	.00038	.00008K	.00328	.01100	.00054	.00059
4,4,-D	10.0	.0003K	.0003K	.0073	.0080	.0003K	.0003K
Silvex	1.0	.00007K	.00007K	.00007K	.00007K	.00007K	.00007%
Toxophene	0.5	.00035K	.00035K	.00035K	.00035K	.00035K	.0 <u>c</u> " 5

K = Actual valve less than valve given

65184, 65185, 65186 - Ash Pile

65187 - Soil by Ash Pile

65191 - Subsurface Tank Near Incinerator

65192 - Soil by Subburface Tank Near Incinerator

J = Estimated valve

Results of Metals Analysis on Samples

Parameter	65184 ng/kg	65185 mg/kg	65186 mg/kg	65187 mg/kg	65192 mg/kg
Silver	3K	3J	; 3K	3K	3K
Arsenic	7.5	6.6	3J	23	7.0
Beryllium]J	_lx ·	lĸ	lK	1K
Cadmium	160	120	84	59	13
Chranium	2900	· 1800	3300	650	1200
Copper '	3300 -	2400	1100	1000	1100
. Mercury	12	, . 5J	21	27	7.4
Lead	21,000	13,000	17,000	4500	2700
Nickel	250	250	79	99	850
Antimony	.8K -	.8K	.8K	.8K	.8K
Selenium	.9J	5.1	.8K	4.2	2J
Thallium	.8K	.8K	.8K	.8K	.8K
2inc	3400	3800	3500	2300	1900

K = Actual valve less than valve given

65184, 65185, 65186 - Ash Pile

65187 - Soil by Ash Pile 65192 - Soil by Subsurface Tank Near Incinerator

J = Estimated valve

Orçanic Compounds	65188 ug/1	65189 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	65191 ug/l
Flucranthene		90J	
Isophoronnne	1800J		1300
Nephthalene	1500J	1400	
Bis(2—ethylhexyl) phthalate	13,000	6900	
Butyl benzly phthalate		1100	
Di-n-butyl phthalate	3800J	1800	
Fluorene		70J	
Phenanthrene	2500J	290	
Pyrene		60J	
Phenol -			110J
Toluene			4900

J = Estimated valve

K = Actual valve less than valve given

65188 - Oil Separator 65189 - 5,000 Gallon Tank

65191 - Subsurface Tank by Incinerator

E ianic Campounds	65184 ug/kg	65185 vç/kg	65186 ug/kg	65187 vg/kg	65190 ug/kg	65192 \ug/kg
Anaphthene			4300J	2500J	1400J	
1,2,4-Trichlorobenzene			8400	1200J		
1,2-Dichlorabenzene		730		-		
1,4-Dichlorobenzene		240				design of the state of the stat
1,2-Diphenylhydrazine	3200J		11000	1900J	1500J	2300J
Fluoranthene	. 2600J	280	15000	12000	12000	370CJ
Isophorane	92000	22000	250000	27000		25000
Naphthalene	110000	8300	180000	18000	22000	12000
N-nitrosodiphenyulamine	20000	120	1700J	2000J	4800J	780J
Bis(2-ethylhexyl)phthalatel	800000	11000	1200000	990000	1200000	210000
Butyl benzyl phthalate	370000	2100	1200000	210000	400000	200000
1 n-butyl phthalate	450000	2100	330000	110000	280000	280000
ı-n-octyl phthalate	5700J	1200	7200	3800J		770J
Diethylphthalate	9700	400				
Dimethylphthalate	24000					
Acenaphthylene	1200J	160	-	1800J		3100J
Anthracene	2300J	100	8000	3000J		1400J
Fluorene	2400J	57K	7400	3200J	3300J	1600J
Phenanthrene	12000	900	32000	17000	28000	7000
Pyrene	3600J	260	14000	15000	9000	4700J
Phenol	80000	170	46000	5800J		4700J

J = Estimated valve

K = Actual valve less than valve given

Results of Organic Analysis on Samples

Organic Compounds	65184 ug/kg/	65185 vg/kg	65186 ug/kg	65187 ug/kg	65190 vg/kg	65193 v %c
Benzene	160	130	480		15	**
1,2-Dichloroethane	46		88	36		
1,1,1-Trichlorcethane	58	380	7000	350	15	
l,l-Dichloroethane	320	67	500	16		
1,1,2-Trichlorcethane	1300		5000	660		
Chloroform	47	120	160	23		
l,l-dichlorcethylene	68		400	13		
1,2-dichloropropane		18K				
Ethylbenzene	3200	1900	65000	120	580	
Methylene Chloride	- 10000	4600	8700	1500		
Tetrachlorcethylene	. 1800	1300	2600	460	100	
Toluene	28000	11000	320000	630	1700	
Trichloroethylene	2200	1200	8100	290	19	, ,
Vinyl Chloride	1600		150			
	1	, .	•			

J = Estimated valve

65184, 65185, 65186 - Ash pile

65187 - Soil by Ash Pile

65190 - Soil by 5,000 Gallon Tank

65192 - Soil by Subsurface Tank Near Incinerator

K = Actual valve less than valve given

Results for PCB Analysis

Table VI

PCB	#65187
Arocler 1248	67.2 mg/kg
Aroclor 1254	117.5 mg/kg

65187 - Composite soil sample by ash pile

Appendix I - Photograph Descriptions

Photo #1 - Under ground 5,000 gallon holding/settling tank

Photo #2 - Oil-water separator trench

Photo #3 - Incinerator area

Photo #4 - Subsurface tank near incinerator (facing incinerator - left tank)

Photo #5 - Subsurface tank near incinerator (facing incinerator - right tank)

Photo #6 - Area adjacent to incinerator

Photo #7 - Incinerator ash waste pile

Photo #8 - Incinerator ash waste pile

Photo #9 - Incinerator ash waste pile

Photo #10 - Incinerator ash waste pile

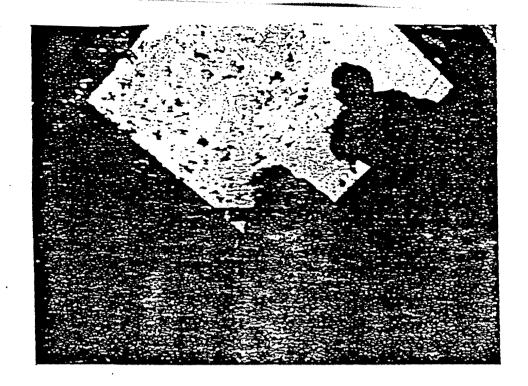


Photo #1



Photo #2

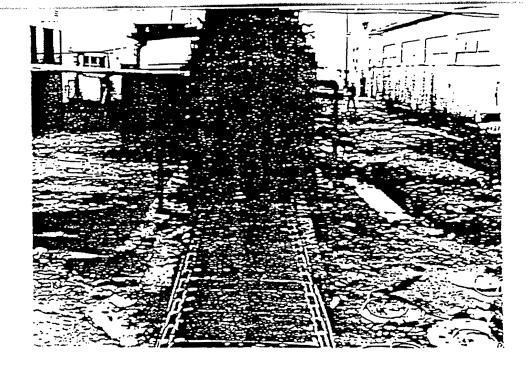


Photo #3

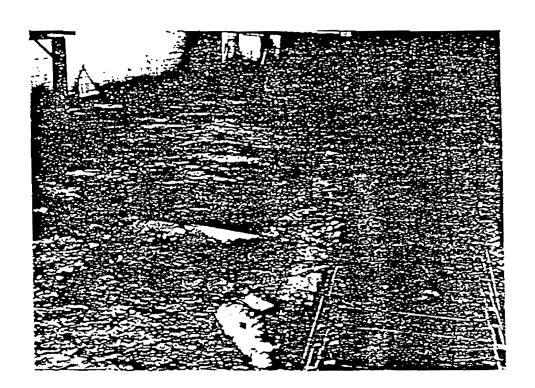


Photo #4

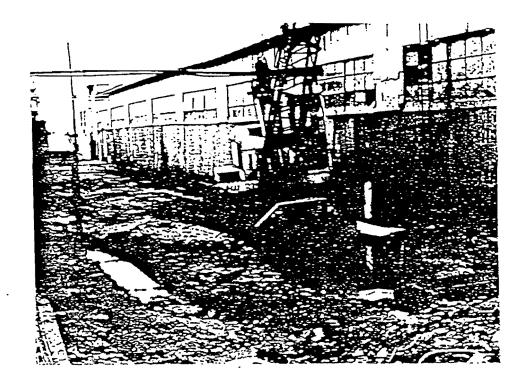


Photo #5

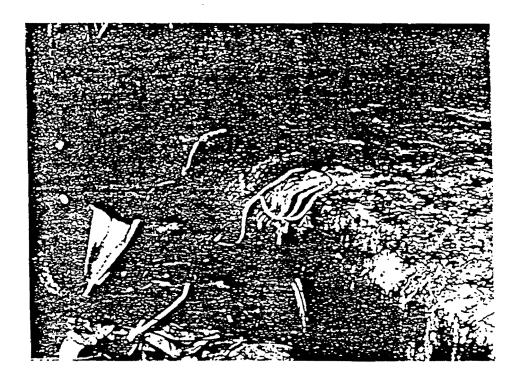


Photo #6

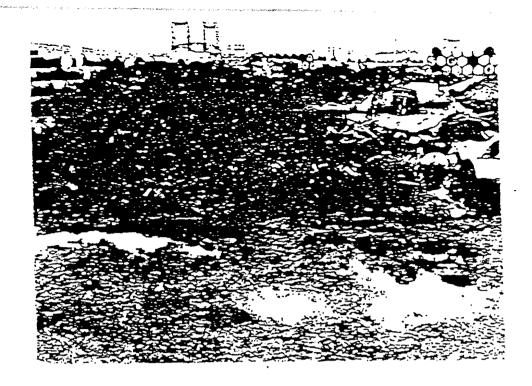


Photo #7

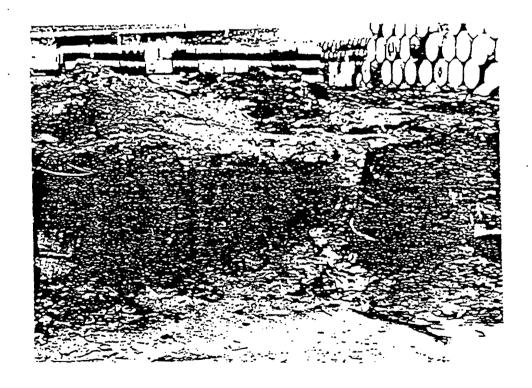


Photo #8

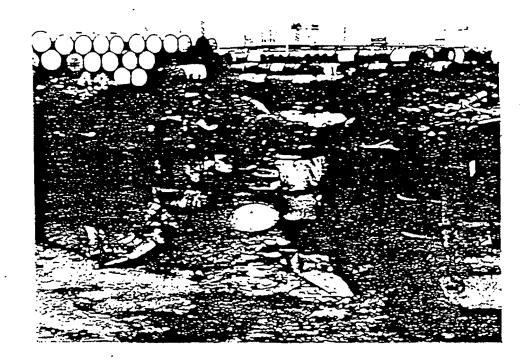


Photo #9

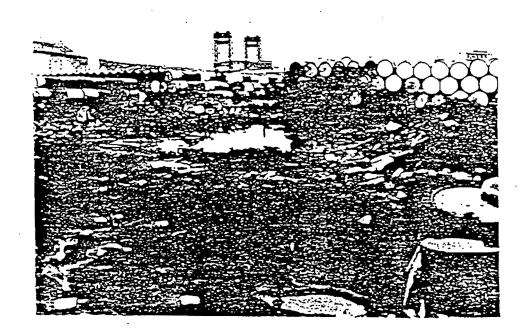


Photo #10

ENYRONMENTAL PROTECTION AGENCY — REGION II SURVEILLANCE & ANALYSIS DIVISION EDISON, NEW JERSEY GERIT

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(2152	1	NUCA, PA	EP Toxety				64
65136	4	NUBA, PEA, F	/				
65137	4	NVSA, PA,	EP TEXKITY		<i>C</i> .	į	
(2183	4	NUDA, PA,	Er Toxicity, Frante	h.l.=,	، ا د ۱۰ در س	v.ty	<u>ح</u> ن
(5184)	6	NASA, PA,	EP TOXICITY, Ignit	٠¼ (، ۱۲ _{) ,}	رد.۲۰۱۸	· ·· · · · · ·	
15190	3	NUCA, PLA					1
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SAMPLING PLAN FOR BAYONNE BARREL AND DRUM SITE NEWARK, NEW JERSEY

Prepared for:

Nick Magriples Aid Wegin 7/15/92
Removal Action Branch
U.S. EPA Region II
Edison, New Jersey 08837

Prepared by:

Victor Vicenty
Region II Technical Assistance Team
Roy F. Weston, Inc.
Edison, New Jersey 08837

Bayonne Barrel and Drum Sampling Plan

1.0 Project Name: Bayonne Barrel and Drum

Newark, Essex County, New Jersey

2.0 <u>Project Requested Bv:</u> Nick Magriples, USEPA Removal Action Branch

3.0 Date Requested: July 8, 1992

4.0 Sampling Date: July 15, 1992

5.0 Project Officer: Victor Vicenty, TAT II PM

6.0 Quality Assurance Officer: Ed Moyle, TAT II QC

7.0 Project Description:

A. Background

Bayonne Barrel and Drum is located off Raymond Boulevard in an industrial section of Newark, Essex County, New Jersey.

The facility was reportedly used for drum reconditioning purposes. The USEPA has documented subsurface PCB soil contamination. Ash material stored in one of the buildings of the facility was found to be contaminated with low levels of dioxin as well as furans.

The property owner has been leasing the property for storage of tankers, trailers and mobile homes. Recently, a trailer was found to have drums containing waste material.

B. Objective

The objective of this sampling program is to obtain data on which will be used to determine the hazardous characteristics of the waste materials in the drums.

C. Data Usage

Data obtained from the sampling program will aid in determining if this site is eligible for a removal or potential enforcement action.

D. Sampling

Six to ten drum samples will be collected for analysis.

E. Analysis

All samples will be tested in the field for the following characteristics:

Solubility Corrosivity

Cyanide Oxidizer

Chlorine Flammability

Field testing results will be substantiated with laboratory analysis. Selected samples will be analyzed for the specified parameters:

Sample Parameter	Sample <u>Matrix</u>	Analytical Method <u>Reference</u>
Ignitability	Liquid/Solid	1020
Corrosivity	- Liquid/Solid	9040
Reactivity		9010/9030

8.0 Project Fiscal Information:

Sampling equipment and manpower will be provided by the TAT contractor. Laboratory Resources, Inc., located in 158 Tices Lane, East Brunswick, NJ., was hired by the TAT contractor to perform the required analysis.

9.0 Project Organizations and Responsibility:

The following is a list of key project personnel and their corresponding responsibilities.

Nick Magriples On-Scene Coordinator
Victor Vicenty TAT Project Manager
Anibal Diaz Laboratory QA/QC Analysis

10.0 Sample Labels:

Each sample must be accurately and completely identified. It is important that any label be moisture resistant and able to withstand field conditions. Sample containers will be labeled prior to sample collection. The information on each label should include the following, but is not limited to:

- 1. Date of collection
- 2. Site name
- 3. Sample identity/location
- 4. Analysis requested

11.0 Sampling Procedure:

Initial entry into the trailer and sampling will be conducted in level B PPE, which includes the use of a Self Contained Breathing Apparatus (SCBA) including Saranex coveralls, disposable sampling gloves, and booties.

All sampling will be conducted in accordance with applicable EPA Standard Operating Procedure (SOP). A copy of the drum sampling SOP is attached as Appendix A.

12.0 Sample Containers:

All sample containers will be laboratory precleaned glassware. Sample containers will be 8 oz. in volume.

13.0 Sample Custody Procedure:

EPA Chain-of-Custody will be maintained throughout the sampling program as per TAT Standard Operating Procedures (SOP) on sample handling, sample container contract specifications and EPA laboratories SOP.

The Chain-of-Custody form to be used lists the following information:

- i. Sample number.
- ii. Number of sample containers.
- iii. Description of samples including volumes and analysis to be performed.
 - iv. Identity of person collecting the sample.
 - v. Date and time of sample collection.
 - vi. Date and time of custody transfer to laboratory (if the sample was collected by a person other than laboratory personnel).
- vii. Identity of person accepting custody (if the sample was collected by a person other than laboratory personnel).

viii. Identity of laboratory performing the analysis.

14.0 <u>Documentation</u>, Data Reduction and Reporting:

Documentation: Field data will be entered into a bound notebook. Field notebooks, Chain-of-Custody forms, and laboratory analysis reports will be filed and stored as per TAT Document Control System. Photographs will be logged in the field notebook including description and location of the picture.

15.0 Quality Assurance and Data Reporting:

Sample analysis will be conducted using quality assurance Level 1 (QA1). The requirements of QA Level 1 are described below:

QAl

- 1. Sample documentation
- 2. Chain of custody
- 3. Summary of sample results
- 4. Detection Levels
- 5. Calibration Data

In addition to QA Level 1, one blind duplicate will be included to enhance the QC of the analysis.

16.0 Data Validation:

All steps of data generation and handling will be evaluated by the On-Scene Coordinator (OSC), the Project Officer, and the Quality Assurance Officer for compliance with EPA Region II SOP for validating hazardous waste site data.

17.0 System Audit:

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The QA/QC Officer or a designated representative will observe the sampling operations and review subsequent analytical data to assure that the QA/QC project plan has been adhered to.

18.0 Corrective Action:

All provisions in the field and laboratory will be taken to ensure that any problems that may develop will be dealt with as quickly as possible to ensure the continuity of the sampling program. Any deviation from this sampling plan will be noted in the final report.

19.0 Reports:

The turnaround time for the written results of analysis is 5 working days.

APPENDIX A

DRUM SAMPLING SOP

Introduction

Many hazardous waste disposal sites and industrial facilities have containers on-site that may have to be sampled as part of investigations initiated under RCRA and CERCLA programs. These containers, specifically drums, may have a wide range of contents, including all types of inorganic and organic chemicals with a variety of physical and chemical characteristics. Since the opening and sampling of these drums could release toxic vapors or cause a violent reaction, such operations should be handled with the utmost safety precautions.

Preliminary Assessment

Once a decision to sample has been made, the site should be evaluated and the following information obtained:

1. Categorization of drums

The entire number of drums should be assessed and categorized into those containing the same or similar chemicals as well as unknown contents. Each of these categories should be considered as a separate group for sampling purposes.

2. The number, type and condition of drums

Prior to any sampling, the number of drums to be sampled should be determined. Depending on the needs of the program, these drums can be selected by accessibility or randomly. When selecting drums, it is important to select only top bung drums that are in good condition. Deteriorated drums (i.e., rusted, corroded, bulging, etc.) should not be opened or moved as the risk of a rupture or spill is greatly enhanced when dealing with these types of containers.

3. The suitability of the site for a safe and efficient operation

Care should be taken to insure the safety of the surrounding populace by checking proximity of the site to local residences, highways, railroads or other facilities. A contingency plan should be prepared and discussed with all pertinent personnel prior to initiating the operation. The plan should address mitigatory actions in the event of a spill, leak or explosion.

4. Hazards associated with the site

A thorough attempt should be made to ascertain the nature of the material in the drums to be sampled or moved. This can be done in a number of different ways including, review of past analyses, site history, employee and former employee interviews, etc. Any information related to the site should be considered in developing the contingency plan.

Pre-sampling Preparation

A sampling team should be formed based on information gathered in the preliminary assessment and the needs of the program. The sampling team should consist of at least three members, a team leader and two samplers. When possible, a designated safety officer should be included as an additional team member to assist in the development of the sampling and safety plans.

Drum Opening

The selection of a safe drum opening technique should be based on the information available on the contents of the drum. For drums that contain a known substance, the opening procedure may not be as complex as that for drums containing an unknown substance.

1. Containers with known contents

At least two persons should be used to sample drums. The samplers should be equipped with the proper safety equipment to deal with the material in the drum. If there is any doubt as to the nature of the drummed material, the drum should be handled as if the contents are unknown.

Drums with known contents that are <u>not reactive or extremely volatile</u> can be opened by hand with a non-sparking bung wrench. Drums that contain a reactive or volatile compound should be opened with a remote opener.

2. Containers with unknown contents

When opening a drums with unknown contents, it is highly recommended that the drum be opened in an area away from the main drum storage area. Methods for container movement are covered in <u>Technical Methods for Investigation of Sites Containing Hazardous Substances, Technical Monograph No. 20</u>, section 20.4.1.

Samplers that plan to open drums of unknown material should use a remote bung opening device. The personal protective gear for this operation should be at a minimum level B (SCBA

and chemical protection suit). EPA's National Enforcement Investigation Center (NEIC) has developed two remote control drum opening devices, a side penetrating device and a bung remover. For other than emergency response operations, the penetrating device is inappropriate and therefore is not discussed in this SOP.

The bung remover is designed to be used on vertical top bung drums only. The opener should only be used on drums of known integrity, i.e., not rusted or corroded. It is also recommended that the smaller diameter bung be opened first, if possible, as this operation requires less torque.

To set up the apparatus, the drum bracket should be aligned with the wrench bracket directly over the bung to be opened, and fastened securely to the drum. The non-sparking bung socket should then be placed on the bung and the impact wrench fastened into the drum bracket. The sampler should now attach the low pressure air hose to the drill and then return to the low pressure tank. The opening operation requires a short (2-5 second) burst of air from the tank. (The distance from the drum to the low pressure tank is variable depending on length of hose or the predesigned safety area). If the bung has not been loosened, the sampler should return to the drum to recheck the setup.

Some common causes of problems are:

- 1) The drill is loose in its bracket.
- 2) The drill direction is reversed.
- 3) The drum bracket is not aligned properly.

If the set-up seems satisfactory, the drill should set up to remove the larger bung and the operation repeated. If the drum does not open after repeated attempts, another drum should be selected.

Sampling

The sampling method to be used is determined by the physical state of the drummed material (solid, liquid, sludge, etc.). It is important to coordinate the sampling effort with the laboratory. The lab will be able to indicate the amount of sample needed to perform the desired analysis.

1. Liquid Waste

To sample waste, a 4-foot length of glass tube should be used. The inside diameter of the tube will be dependent on the viscosity of the material (for most liquids, 6 to 8 mm I.D. tube should be adequate). To sample, one person should insert the tube into the drum. By sealing the top of the tube with a stopper or thumb, the sampler can extract a sample from the

drum. The other sampler should be holding the sample container and assist in transferring the material to the container. After collecting the sample, the glass tube is broken and placed in the drum.

Note: Sampling personnel should observe if multi-phase liquid layers are in the glass tube. Samples of each phase may be obtained using the same method. This will require separate sample containers for each phase if drum waste characterization is being performed.

2. Sludge Waste

For sludges, a larger bore glass tube may be needed. This may require removing the larger bung. A 40 ml glass vial fastened to a wooden dowel can be used in lieu of a large bore glass tube. The glass tube or vial and dowel should be disposed of properly, e.g., placed in the drum that was sampled, buried on-site, etc.

Note: If the small bung has already been removed, the large bung can be removed with a bung wrench.

3. Solid Waste

Occasionally, a drum containing a solid or granular waste may have to be sampled. These types of drums, often constructed of fiberboard, are easily sampled with a disposable scoop if the drum is an open-top. If the drum is closed, a brass or wood spoon attached to a wooden dowel may be used. To obtain core samples, two tools are recommended: a grain sampler or a sampling trier.

The grain sampler consists of two slotted telescoping tubes, usually made of brass or stainless steel. The outer tube has a conical, pointed tip on one end that permits the sampler to penetrate the material being sampled.

To sample:

- Insert the sampler in the closed position into the material to be sampled.
- Rotate the inner tube to open the sampler and wiggle the tube to allow materials to enter the device.
- 3. Remove the sampler from the material and transfer contents to appropriate sample container.
- A typical sampling trier is a long tube with a slot that

extends almost its entire length. The tip and edges are sharpened to allow easier penetration into the material to be sampled. The use of the trier is similar to that of the grain sampler discussed above. However, the trier is preferred when sampling moist media.

To sample:

- 1. Insert the trier into the waste material at a slight angle and rotate the trier once or twice to cut a core of material.
- 2. Slowly withdraw the trier, making certain that the slotted portion is facing upward.
- 3. Transfer the sample to an appropriate container using a brush or spatula.

Only about 20 to 30 grams of this type of material are required for analysis.

Since both of these samplers are reusable, they should be decontaminated (pre-cleaned) in the field using cleanser and water and brought to the lab for solvent washing.

Note:

وبالماسان

Some of these solid materials may be reactive when exposed to the atmosphere. The sampler should note any changes in the physical characteristics (i.e. heat build-up, color change) of the sample and retreat to a safe area to discuss mitigatory procedures. It is recommended that non-sparking tools be used when sampling granular or solid media.

Drum Closing

After completion of the sampling activities, the drum should be resealed using a bung wrench.

1090 King Georges Post Rd. , Suite 201, Edison, NJ 08837 908-225-6116

FECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION EPA CONTRACT 68-WO-0036

TAT-02-F-06713

<u>MEMORANDUM</u>

TO:

Nick Magriples, EPA OSA

FROM:

Victor Vicenty, TAT

Michael Mentzel, TAT QC

DATE:

July 22, 1992

SUBJECT:

Bayonne Barrel and Drum Assessment and Sampling Trip

Report

US Highway 1 and Raymond Boulevard Newark, Essex County, New Jersey

This memorandum summarizes the July 15, 1992, site assessment and sampling activities performed at the aforementioned site. Figure 1 shows the approximate location of the site.

EPA and TAT mobilized to the site to conduct air monitoring and hazcat samples collected from drums contained in a trailer within the site. The approximate location of the trailer within the site is shown on Figure 2.

EPA and TAT performed a Level "B" initial entry into the trailer with an HNU/PID (10.2 eV probe), OVA/FID and radiation meter. No readings above background conditions were observed. An air monitoring log is presented as Appendix A.

Afterwards, EPA and TAT inventoried the trailer. Sixteen (16) drums were observed to contain product and approximately 25 were empty. The drums were numbered from 1 to 16 in red. The numbers were circled since the drums had numerical markings on them. A description of the drums, including all markings, was logged in the site log book.

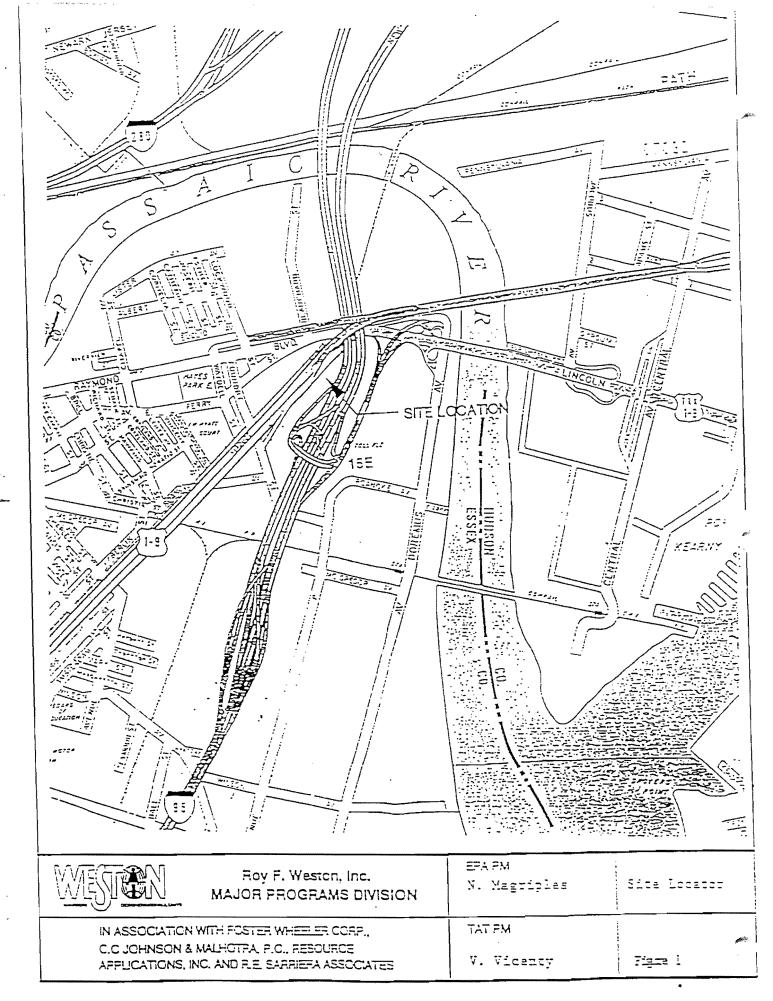
EPA and TAT obtained all samples using glass drum thieves. Samples were collected in 8 oz. glass jars. Samples could not be obtained from drums 1, 5, 8, 14 and 15. Drum No 1 contained a black sludge, drum 8 had about 1" of material and drums 5, 14 and 15 were empty. A total of 11 samples were collected. TAT kept constant air monitoring during the initial portion of the sampling operation. Low Hnu-battery charge distorted the instrument readings and the instrument was not further used.

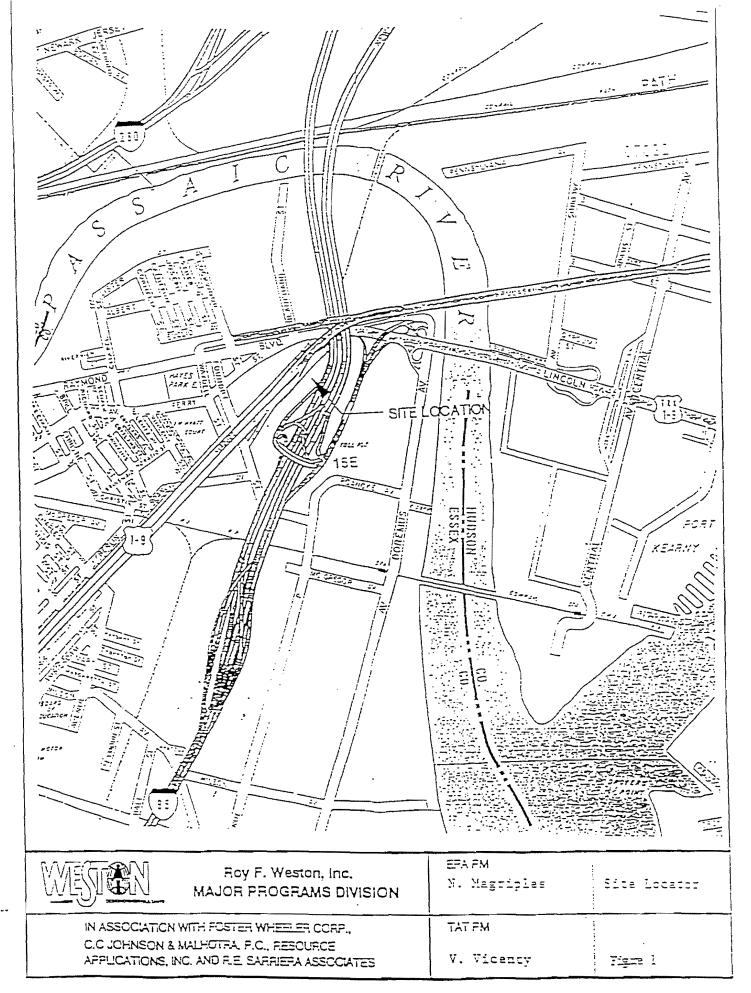
Roy F. Weston, Inc.

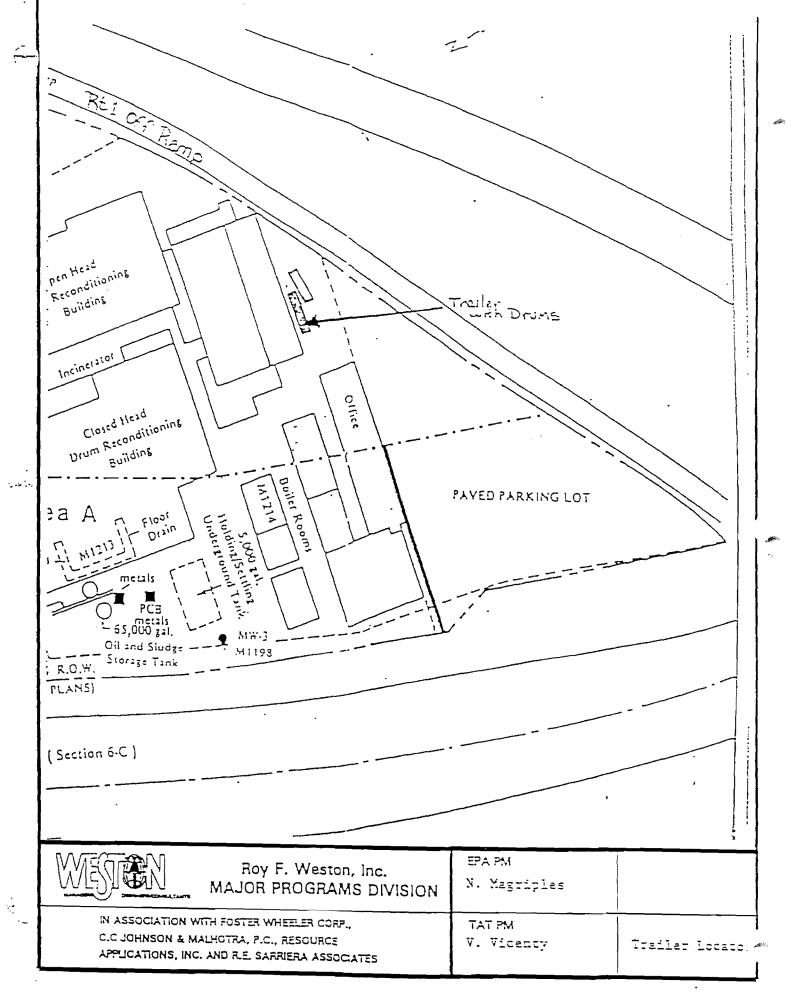
MAJOR PROGRAMS DIVISION

In Association with Foster Wheeler Envirosponse, Inc., Resource Applications, Inc., C.C. Johnson & Malhotra, P.C., R.E. Sarriera Associates, and GRB Environmental Services, Inc.

BBD - 2.1037







The samples were cleaned, delivered to the TAT Hazcatter and tested on-site. According to the hazcatting results, the materials include combustible, chlorinated and corrosive liquids. A summary of the hazcatting results is presented as Appendix B.

Seven samples were selected by the OSC for laboratory analyses. These samples were carried to Laboratory Resources, Inc., in East Brunswick, NJ. A summary of the sampling event shipment in Presented in Table 1 below.

TABLE 1

Sample Number	Hatrix	Analyses	Location	Shipment Date
2	Liquid	Ignitability - Corresivity	Orum No. 2	07-15-92
4	Liquid	Ignitability - Corrosivity	Drum No. 4	07-15-92
7	Liquid	Ignitability - Corrosivity	Drum No. 7	07-15-92
9	Liquid	Ignitability - Corrosivity	Drum No. 9	07-15-92
10	Liquid	Ignitability - Corrosivity	Drum No. 10	07-15-92
11	Liquid	Ignitability - Corrosivity	Drum No. 11	07-15-92
13	Liquid	Ignitability - Corrosivity	Drum No. 13	07-15-92
17	Liquid	Ignitability - Corrosivity	Drum No. 7	07-15-92

A copy of the Chain of Custody Record is included as Appendix C. The summary of the laboratory results and a copy of them is presented as Appendices D and E respectively.

TAT documented all site activities and conditions in a logbook. All hazardous PPE and hazcatted samples were left on-site.

cc: TAT PM
TDD File

APPENDIX A

. Data to be summarized by a "Range of readings, i.e., Low to High" and/or "Average" by location.

, _mien/Location	CGVO ₂ Meter	Radiation Meter	PID/Probe	ED/OVA	Detector Tube HCI, HCN
Background		.05	O. Zunits	1 Fpm	
Fresche Trailer		.05	0.2 units	125M	0,0
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			-		
···mmary/Comm	ienus: No rec	ا المراد المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة المادة	aread on	we cock-with	g .

APPENDIX B

		of Brum	(gal)			«Wàler»	Hexane					
-	7	17-E	55	25	D - 2 Sludge						HNu - Background Oxid CN - CI - Flam	Sample Not Drawn
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	4	17-E	55		D - 3 Hangstore	+	+	4	Liquid	Clear	HNU - 20 Oxid Negative CN - Negative CI - Negative Flam Positive	CL
- ^ \ - ^ \ 	5	Poly	55	- 0	Empty Drum - - -		·		-		HNU - Oxid Flam	МТ
	6	17-E	55	33	D - 4 Oil Clear	SS	SS	5	Liquid		HNU - 2 units Oxid Negative CN - Negative CI - Negative Flam Negative	Oily Water
	7	17-E	55	33	Grey Mills Clipper Gitene Parts Cleaning Fluid Methylene Chl.	+	+	5	Liquid	Clear	HNU - 3 Units Oxid Negative CN - Negative CI - Positive Flam Positive	OL
	8	17-E	55	1"							HNU - Oxid CN - Cl - Flam	MT
	9	17-E	55	75	D - 5 Castor Oil HNu's sensitivity may have been affected by low battery charge.	-	+	5	Liquid	Amber	HNu - Background Oxid Negative CN - Negative CI - Negative Flam Positive	OL
-	10	1/-E	55	33	D - 6 HNu's sensitivity may have been affected by low battery charge.	.	-	7	Liquid	Clear Amber	HNu - Backgroundl Cxid Negative CN - Negative Cl - Negative Flam Positive	Fiammable Inorganic Liquid

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								-	ridaia	Ciesi	Oxid Negative	111
				-	HNu's sensitivity may						CN - Negative	
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	i										Flam Negative	
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											CI - Positive	
				}							Flam Positive	
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	15	17-E	55	0	Empty Drum						HNU -	MT
					<i>'</i>						Oxid	
	-										Flam	
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		Ou. Doy			Corrosive - Monsanto						Oxid	Liquid
											Flam	
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Legend:

OL - Organic Liquid

ND - Not Performed

NL - Neutral Liquid

MT - Empty

APPENDIX C

RegionITER, 2590 Wood Fridge Lie (908) 906 - 6930 FORECT NIT								
Sample Number	Number of Containers	Description of Samples						
2	1	1×802.	for Ignitability	e c	OYV C	511174		
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11			1)					
13			(·)					
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All	Via	forVicenty				Locating Analysis		
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			LOPE!		71			
Sample Number	Relinquished By: .		Received By:	Time	Date	Zeason for Change of Custody		
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Semple Number		quished By:	. Received By:	l lia.	Data	Reason for Change of Custody		
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APPENDIX D

SUMMARY OF LABORATORY ANALYSES

Sample Number	Flashpoint (F) Results	Corrosivity(DE units) Results
2	> 160	3.99
4	125	3.73
7	> 160	4.20
g	130	4.66
10	130	8.30
11	80	6.30
13	80	4.64
17	> 160	4.52

APPENDIX E

FEGULAR TEST RESULTS BY TEST

ಯಾಸುತ್ತ ಸಂಕ್ರಮಿನ	IVILLY OF WASHE SAMPL :	<u> Minis</u> tra:	1 Maximum:	14
01A 02A 03A 04A 05A 06A 07A	Sample Description 2 4 7 9 10 11 13 17	3.99 3.73 4.20 4.66 6.30 6.30 4.64 4.52	Phits Propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propriet propri	CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/92 JD CT/16/
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WESTON MAJOR PROGRAMS DIVISION HEALTH AND SAFETY PLAN EMERGENCY RESPONSE / SITE INVESTIGATION

TDD No. 9707-03	Site Name: BRINNIE Privil 9 Drum
Site Address: Street No. US H	shinal No. 1 & Ralimond Blub.
City Marit	1. P. C. C. C. C. C. C. C. C. C. C. C. C. C.
County/State <u>ESS</u>	Ex County, NI
Site Contact / Phone No.:	
MOTES INT	Turnpike North to exit ISE for Rt. 129 and Recommend Blud I between Auberlanding etc. In the most awa make an immie etc. In the facilities zarking let.
NO. OVEY LING	tion: Atmos arum reconditioning for lity. There MORATIONS 3 above evoured belonger to the is of est moderial address in a building.
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,	Commercial () Urban/Residential () Rural
USEPA Contact: Nick Moriol Original HASP: Yes Lead TAT: V. Vice crity	Modification Number: Modification Number: Modification Number: Modification Number: Modification Number: Modification Number: Modification Number: Modification Number: Modification Number: Modification Number: Modification Number: Modification Number: Modification Number: Modification Number: Modification Number:
Response Activities/Duration (fill	in as applicable)
Emergency Response:	() Perimeter Recon. () Site Entry () Visual Documentation: () Multi-media Sampling: () Decontamination:
Assessment:	Perimeter Recon. Site Entry Visual Documentation: Multi-media Sampling: Decontamination:

Physical Safety Hazards to Personnel
X) Heat () Cold (X) Precipitation () Confined Space (.) Terrain Walking/Working Surfaces () Fire & Explosion () Oxygen Deficiency () Underground Utilities () Overhead Utilities () Heavy Equipment Unknowns in Drums, Tanks, Containers () Ponds, Lagoons, Impoundments () Rivers, Streams () Pressurized Containers, Systems () Noise () Illumination () Nonionizing Radiation () Ionizing Radiation
Biological Hazards to Personnel None known
() Infectious/Medical/Hospital Waste () Non-domesticated Animals () Insects () Poisonous Plants/Vegetation () Raw Sewage
Training Requirements
 40 Hour General Site Worker Course with three days supervised experience. () 24 Hour Course for limited, specific tasks with one day supervised experience. () 24 Hour Course for Level D Site with one day supervised experience. () 8 Hour Annual Refresher Health and Safety Training. () 8 Hour Management/Supervisor Training in addition to basic training course. () Site Specific Health and Safety Training. () Pre-entry training for emergency response skilled support personnel.
Medical Surveillance Requirements
Baseline initial physical examination with physician certification. Annual medical examination with physician certification. Site Specific medical monitoring protocol (Radiation, Pesticide, PCB, Metals). () Asbestos Worker medical protocol. () Exempt from medical surveillance: Examination required in event of chemical exposure or trauma.

SITE SAFETY PLAN AMENDMENT # 2:
SITE NAME: BOWDING DOGTE
DATE: 1-13-92
TYPE OF AMENDMENT: Include Drum Samplinus
Drums containing Mederical ware butte DRP
ALTERNATE SAFEGUARD PROCEDURES:
· · · · · · · · · · · · · · · · · · ·
REQUIRED CHANGES IN PPE: All sampling activities
Will require Level R PPE
U.S. EPA HSO INFORMED: 7-13-92
ERCS CONTRACTOR HSO INFORMED:
TAT RSO INFORMED:

Paraseters				
1 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	Unknowns			
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Flash Point Flanmable Units	Degrees F or C	Degrees F or C	Degrees F or C	Degrees F or C
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First Aid Treatment				
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	Plan: Una extina the exclusion zone all comment will be proceed decontaminated. The DEC or designated alternate will
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PETER DEPASON, JR.	Peter Dolows A	WESTON TAT	11-13-91
Victor Vicenty	1/2/1/1/	Weston TAT	.,,
Nich Magriples	Hach Hacil	FPA.	i _t
D. Parin	Robert J. Hartam	= 12/2	11
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Final Submission of HASP by	: Vistor Moranda	·	Date
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Introduction

Many hazardous waste disposal sites and industrial facilities have containers on-site that may have to be sampled as part of investigations initiated under RCRA and CERCLA programs. These containers, specifically drums, may have a wide range of contents, including all types of inorganic and organic chemicals with a variety of physical and chemical characteristics. Since the opening and sampling of these drums could release toxic vapors or cause a violent reaction, such operations should be handled with the utmost safety precautions.

Preliminary Assessment

Once a decision to sample has been made, the site should be evaluated and the following information obtained:

1. <u>Categorization of drums</u>

The entire number of drums should be assessed and categorized into those containing the same or similar chemicals as well as unknown contents. Each of these categories should be considered as a separate group for sampling purposes.

2. The number, type and condition of drums

Prior to any sampling, the number of drums to be sampled should be determined. Depending on the needs of the program, these drums can be selected by accessibility or randomly. When selecting drums, it is important to select only top bung drums that are in good condition. Deteriorated drums (i.e., rusted, corroded, bulging, etc.) should not be opened or moved as the risk of a rupture or spill is greatly enhanced when dealing with these types of containers.

3. The suitability of the site for a safe and efficient operation

Care should be taken to insure the safety of the surrounding populace by checking proximity of the site to local residences, highways, railroads or other facilities. A contingency plan should be prepared and discussed with all pertinent personnel prior to initiating the operation. The plan should address mitigatory actions in the event of a spill, leak or explosion.

4. Hazards associated with the site

A thorough attempt should be made to ascertain the nature of

the material in the drums to be sampled or moved. This can be done in a number of different ways including, review of past analyses, site history, employee and former employee interviews, etc. Any information related to the site should be considered in developing the contingency plan.

Pre-sampling Preparation

A sampling team should be formed based on information gathered in the preliminary assessment and the needs of the program. The sampling team should consist of at least three members, a team leader and two samplers. When possible, a designated safety officer should be included as an additional team member to assist in the development of the sampling and safety plans.

Drum Opening

The selection of a safe drum opening technique should be based on the information available on the contents of the drum. For drums that contain a known substance, the opening procedure may not be as complex as that for drums containing an unknown substance.

1. Containers with known contents

At least two persons should be used to sample drums. The samplers should be equipped with the proper safety equipment to deal with the material in the drum. If there is any doubt as to the nature of the drummed material, the drum should be handled as if the contents are unknown.

Drums with known contents that are <u>not reactive or extremely volatile</u> can be opened by hand with a non-sparking bung wrench. Drums that contain a reactive or volatile compound should be opened with a remote opener.

2. Containers with unknown contents

When opening a drums with unknown contents, it is highly recommended that the drum be opened in an area away from the main drum storage area. Methods for container movement are covered in <u>Technical Methods for Investigation of Sites Containing Hazardous Substances, Technical Monograph No. 20, section 20.4.1.</u>

Samplers that plan to open drums of unknown material should use a remote bung opening device. The personal protective gear for this operation should be at a minimum level B (SCBA and chemical protection suit). EPA's National Enforcement Investigation Center (NEIC) has developed two remote control drum opening devices, a side penetrating device and a bung remover. For other than emergency response operations, the penetrating device is inappropriate and therefore is not

angle and rotate the trier once or twice to cut a core of material.

- 2. Slowly withdraw the trier, making certain that the slotted portion is facing upward.
- 3. Transfer the sample to an appropriate container using a brush or spatula.

Only about 20 to 30 grams of this type of material are required for analysis.

Since both of these samplers are reusable, they should be decontaminated (pre-cleaned) in the field using cleanser and water and brought to the lab for solvent washing.

Note:

Some of these solid materials may be reactive when exposed to the atmosphere. The sampler should note any changes in the physical characteristics (i.e. heat build-up, color change) of the sample and retreat to a safe area to discuss mitigatory procedures. It is recommended that non-sparking tools be used when sampling granular or solid media.

Drum Closing

After completion of the sampling activities, the drum should be resealed using a bung wrench.

SAFETY

USZ AND CARE INSTRUCTIONS:

The EazCat Chemical Identification System's SAFETY depends upon three basic premises:

- 1. Very small quantities of the unknown are used.
- Suggested protective clothing should prevent contact with these small amounts of the unknown, even if the clothing is not the optimum material to prevent break through.
- 3. Very reactive chemicals provide sufficient warning prior to collection.

MAINTAIN YOUR WORK AREA AND EQUIPMENT:

Develop good work habits; work in a ventilated environment; wear safety equipment; maintain the equipment; clean-up spills immediately; and keep work area clean, organized and uncluttered.

TEST TUBES:

Borosilicate test tubes must be used while performing HazCat tests. The amounts of reagent given in the directions for HazCat are specific for 13×100 mm borosilicate test tubes.

Occasionally a batch of these test tubes is defective. This can be seen as an unusual amount of breakage, especially during the Char Test. Haztech Systems Inc. recommends the immediate replacement of the entire batch. If the tubes were purchased from Haztech, we will replace them immediately at no cost.

TESTS ARE QUALITATIVE ONLY:

HazCat is qualitative field chemistry. Usually the amounts of reagents used during the tests are purposely small and approximate. If something does not seem right, more or less reagent may be added. When HazCat instructions are specific "add one drop" or "add one drop at a time", FOLLOW THESE DIRECTIONS CAREFULLY.

SAFETY

ALWAYS

Wear Protective Clothing when collecting samples and performing tests



Caution Wear Gas Mask



Caution Wear Gloves



Caution
Wear
Goggles

You may not require a respirator in every case, but always wear gioves and goggles.

ALWAYS

Watch Tests!!!! Looking away can be very dangerous. Do not assume the nothing more is going to happen once you have finished the test. Some delayed reactions can be very violent or, at least, spectacular.

ALWAYS

Consider that a material may have more than one hazard can gorization. If material is still unknown at the end of the test procedure, make sure that you have done a pH test, ignition test, oxidizer test and a peroxide test.

ALWAYS

Keep track of the people who may have been exposed until you have a hazard classification.

ALWAYS

Wash off any contaminated skin or clothing immediately. Keep you work station clean. Keep track of your spent test tubes. Do not empty them until you know what the material is.







ALWAYS

Remember that this system identifies most commonly spilled makes but not all materials—treat as dangerous!!!!

BBD - 2.201

SAFEIY

C O NOT point test tube at anyone!

DO NOT add water to the unknown!

TTAYAS YOU ACID TO WATER

DO NOT put HOTchlorine hot wire into liquid.

DO NOT

put cork in test tube containing effervescing material!

LONOT

heat the unknown material directly in the char test. Preheat the tube above the material, and slowly work the flame into the region of the test tube containing the unknown.

DO NOT

breathe or smell the fumes coming off the char test.

DO NOT

hold the test tube in your bare hands.

If no visible reaction is taking place, you may feel the test tube carefully to determine whether the reaction is exothermic or endothermic.



DO NOT

sniff an unknown material. Often the odor will waft toward you. If the material is not fuming, you may fan a small amount of the head space material in your direction with your hand. Do this after you have completed the tests and have a sense of the category of material you are dealing with.

DO NOT

use the same test tube for more than one test. Use a new test tube for each test so that there is definitely no contamination from the previous test. You may do the pH test using the water solubility test done just previously.

TON OG

allow flame near open container of the unknown. Keep container of unknown material away from water, reagents and other unknowns

BBD - 2.2017

ACTION MEMORANDUM

DATE:

SUBJECT: Confirmation of Verbal Authorization and Ceiling

Increase to Conduct a CERCLA Removal Action at the Bayonne Barrel and Drum Site, Newark, New Jersey

FROM: Joseph V. Cosentino, On-Scene Coordinator

Removal Action Branch, Technical Support Section

TO: William J. Muszynski, P.E.

Deputy Regional Administrator

THRU: Kathleen C. Callahan, Director

Emergency & Remedial Response Division

Site ID No.: 9J

I. PURPOSE

On September 30, 1991, the United States Environmental Protection Agency (EPA), Removal Action Branch, received a request from the State of New Jersey Department of Environmental Protection (NJDEP) to evaluate the Bayonne Barrel and Drum Site (Site) for Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) removal action consideration.

Until recently, EPA's Resource Conservation and Recovery Act (RCRA) program had been the lead program for the Site. However, after several attempts to litigate and negotiate a responsible party and/or third party closure of the facility proved to be unsuccessful, the Site was referred for removal action consideration. A fire at the facility on July 8, 1994 prompted the emergency response documented in this Action Memorandum.

The purpose of this Action Memorandum is to document the approval of funds and to request additional monies for the emergency removal action initiated to remediate the threats to human health and the environment present at the Site. Verbal funding authorization was received from Kathleen Callahan, Director of the Emergency and Remedial Response Division (ERRD) on July 14, 1994. A total project ceiling of \$200,000, with a mitigation ceiling of \$150,000, was authorized. In order to

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EPA: FORH (1320-1 (12-70)	19/19/7 0/11/14	8/12/94		OFFICIAL FILE COPY

complete this phase of the removal action, an additional \$935,000 is needed of which \$500,000 is for mitigation contracting. The new project ceiling would be \$1,135,000 of which \$650,000 comes from our Regional allowance.

This Action Memorandum documents that a CERCLA removal action is necessary to contain, secure, stabilize, inventory, sample and identify the hazardous wastes and substances found at the Site.

This site is not on the National Priorities List (NPL), nor are there any nationally significant or precedent setting issues associated with this removal action.

II. SITE CONDITIONS AND BACKGROUND

The Comprehensive Environmental Response, Compensation, and Liability Information System ID Number for this time-critical removal action is NJD009871401.

A. Site Description

1. Removal site evaluation

A Removal Site Evaluation (RSE) was completed for the Site in January, 1992. The RSE concluded that CERCLA hazardous substances had been released into the environment at the Site which is a facility. In conjunction with the RSE, an Agency for Toxic Substances and Disease Registry (ATSDR) Health Consultation was requested. The ATSDR Consultation is attached as Appendix 1 and stated that conditions at the Site pose a potential public health threat to persons on the Site via direct contact.

At the time of the RSE a third party was providing site security, lighting and the services of an environmental consultant while conducting negotiations for the sale of the property. The sale of the property could have resulted in a voluntary site cleanup as a condition of the transaction. The NJDEP would have been able and willing to oversee those activities under an administrative order.

The RSE recommended that should negotiations for the sale of the property fail to result in a timely and appropriate cleanup, a CERCLA removal action would be warranted.

Negotiations for the sale of the property appear to have failed. Site security and lighting were discontinued when Chemical Transport Incorporated, a lessee at the Site, discontinued operations at the Site.

A CERCLA removal action is now warranted to stabilize the Site since there is no other mechanism available to address the immediate concerns and threats presented by the Site. The areas

of immediate concern are the ash piles, contaminated soil near the incinerator, drums, material remaining in the tanks, and site access.

On July 8, 1994, a fire occurred at the Site destroying the former offices of Bayonne Barrel and Drum and an adjoining building. According to the Newark Fire Department (NFD), the fire is believed to have been started by vagrants that were inhabiting the building. It is assumed that because the fire did not impact any of the known waste or waste storage areas at the Site, EPA was not notified of the incident. However, several drums can be seen in the fire debris and rubble.

On July 14, 1994, an inspection of the Site revealed that site security had been terminated; no tenants were occupying the facility and access to the Site was essentially unrestricted. The Site was accessible throughout due to openings in the fence. A scavenger was seen sifting through the rubble for, scrap metal, at the time of the site visit. The main gate, noted to be closed and secured with a lock and chain upon arrival, was subsequently opened by the scavenger. An empty box trailer in one of the buildings was determined to be stolen and reported to the Newark Police Department.

The ash pile and drums previously contained in a building are now exposed and visible from the outside since a makeshift plywood wall has collapsed. The drums, approximately 300-350, appear to be in a deteriorated condition. Several drums found in the empty drum storage area, at the rear of the property, are leaking an oil-like substance to the ground surface. The incinerator area is flooded and appears to have been accessed by a heavy vehicle. The structural integrity of one of the partially filled above ground tanks is questionable. Ground stains were noted at it's base, manhole, and associated piping. An underground storage tank is open and discharging a substance to the ground surface. The main tire pile, at the southeastern edge of the facility, has increased substantially in size. Evidence of illegal dumping is apparent throughout the Site. Several piles of what appears to be demolition/construction debris, a dump trailer full of soil and debris, a flat bed trailer with several drums containing an unknown material, and smaller piles of tires are present at the Site.

2. Physical location

The Site, located at 150-154 Raymond Boulevard in Newark, Essex County, New Jersey, occupies approximately 15 acres of Block 5002, Lots 3 and 14. The Site, formerly the location of a drum reconditioning facility, is bounded by Raymond Boulevard and an exit ramp from Routes 1 and 9 to the north and west, an entrance ramp to the New Jersey Turnpike to the east and south, and the parking lot of a movie theater to the southwest (see Figure 1). The nearest residential area to the Site is approximately one-half mile away.

3. Site characteristics

The Site operated as an unlicensed treatment storage and disposal facility from the early 1940's until the early 1980's when the company filed for bankruptcy under Chapter 11.

According to an EPA Environmental Services Division (ESD) report, at the time the facility was operating, drum cleaning operations involved both closed-head and open-head drums. In closed-head drum cleaning, chains and a caustic solution were used to wash out previous material in the drums. The spent solution drained through an oil-water separator into a 5,000 gallon underground holding/settling tank and was then pumped into a 60,000 gallon above ground holding/settling tank. The liquid was decanted to the sewer under a permit to the Passaic Valley Sewage Commission. Open-head drums were placed on a conveyor belt and moved through the incinerator, which burned the residue inside the drums. This residue material was collected in two subsurface holding/settling tanks adjacent to the incinerator. Approximately 40,000 pounds of incinerator ash and sludge were reportedly generated monthly.

All of the original buildings which existed during the facility's operations remain standing, except for the former offices, which were destroyed by the recent fire. Although the walls of buildings impacted by the fire remain standing, the structural integrity is in doubt.

There are three vertical storage tanks, underground storage tanks, ash piles (approximately 1,600 cubic yards), shredded tires, 200-250 drums and an ash pile in one of the buildings, and an estimated 45,000 reportedly RCRA empty drums in the field, some of which contain materials. Many of the drums containing material are open, severely deteriorated, and improperly stored. Several have leaked all or a portion of their contents. A number of drums were confirmed to be leaking on July 14, 1994. There are ground stains beneath the valves and piping of the vertical tank known to contain material. The ash piles, which are uncovered, contain PCB contaminated organic and inorganic substances.

Site access is essentially unrestricted, although a fence surrounds the Site. Numerous holes have been cut in the fence and gates have been removed. Vagrants inhabiting portions of the former offices of Bayonne Barrel and Drum, according to the NFD, may have been responsible for the July 8, 1994 fire. During EPA's site visit on July 14, 1994, a person was found collecting scrap metal from the fire debris. This individual was later seen opening the gate by smashing or cutting the lock and chain.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

An NJDEP site inspection report dated March 3, 1982 indicated the presence of an ash pile. Samples collected from the pile were

found to be ignitable. Additionally, halogenated organic compounds were detected in the pile and its leachate at 3,450 ppm and 2,579 ppm, respectively.

In 1985, samples collected by a consultant from the area of the incinerator feed indicated petroleum hydrocarbons (16,300 ppm) and PCBs (320 ppm) at a depth of one foot. Except for lower values of PCBs, similar values were detected at the output end of the incinerator. Dioxin was not detected in concentrations greater than 0.32 ppb.

Samples were also collected from the wastewater treatment area, which indicated contaminated petroleum hydrocarbons, ranging from 5,920 ppm to 59,000 ppm, from the surface to near ground water.

On February 17, 1984, EPA conducted a RCRA sampling inspection at the Site. Analysis of samples collected from the ash piles at the rear of the facility and in the area around the incinerator revealed the following maximum concentrations:

CERCLA Hazardous _Substances	Highest Concentration Detected (mg/kg)	
l,l,l-trichloroethane l,l-dichloroethane l,l,2-trichloroethane ethyl benzene methylene chloride tetrachloroethylene toluene trichloroethylene vinyl chloride arochlor 1248 arochlor 1254 cadmium chromium copper lead mercury zinc	7 0.5 5 65 10 2.6 320 8.1 1.6 67.2 117.5 160 3,300 2,900 21,000	

mg/kg = milligrams per kilogram (ppm)

Additionally, the ash exhibited the RCRA Characteristic of E.P. Toxicity for lead.

On June 2, 1988, EPA conducted another RCRA inspection at the Site. Samples collected from the ash piles, in general, revealed similar results to those presented above. Additionally, the ash was found to be E.P. Toxic for cadmium. PCBs were detected at 293 mg/kg. Analysis of a sample collected from a drum containing liquid (stored in the drum and ash storage building) was found to contain the following concentrations:

CERCLA Hazardous Substance	Highest Concentration Detected (ma/l)
benzene chlorobenzene ethyl benzene tetrachloroethylene xylene toluene 1,3-dichlorobenzene 1,4-dichlorobenzene 1,2 dichlorobenzene naphthalene	92 78 1,200 62 10,000 2,400 2.6 34.2 167 28.3
•	

mg/l = milligrams per liter (ppm)

On November 13, 1991, an On-Scene Coordinator (OSC), Technical Assistant Team (TAT) and representatives from the EPA ESD inspected the three aboveground tanks at the Site in order to determine if they contained any materials. Table 1 lists the tanks, their dimensions, any distinguishing features and the volume of material present. Tank 3 contained an amber colored product. Upon hazcatting, it was found to be combustible. An HNU reading of 80 units was detected from the sample.

The volume of ash material and the number of drums containing material that was noted in previous reports were verified. Most of the drums in the building appear to contain ash. Of the drums in the field, approximately twelve, appear to contain some material, mostly less than one-third of a drum.

TABLE 1

	<u>Height (ft)</u>	Diameter (ft)	Volume (gal)	Color
Tank 1	25	8	empty	brown
Tank 2	54	12	empty	white/yellow
Tank 3	23	. 11	1,140	white

On November 19, 1991 the OSC and TAT collected two composite samples of the ash from the building and the courtyard near the incinerator. The samples were sent to a private laboratory for dioxin and furan analysis. Analytical results revealed 94 parts per trillion (ppt) of 2,3,7,8-TCDD in one sample and a toxicity equivalent factor (TEF) of 973 ppt in the other sample. The TEF is a weighted, total concentration taken from the various dioxin and furan isomers, relative to 2,3,7,8-TCDD.

Air monitoring conducted in the abandoned buildings, the area of the incinerator, the field near the stacked drums and at random spots on the property did not detect anything above background levels, except as noted above.

All of the materials listed above, except for petroleum hydrocarbons, are CERCLA designated Hazardous Substances, as listed in 40 CFR Table 302.4. The analytical data presented

above is a summary of the most significant data available from the aforementioned reports.

The mechanism for past releases at the Site appears to have been spills, poor housekeeping practices, illegal disposal practices and unpermitted wastewater discharges. Past practices of concern at this facility has included: disposal of chemicals directly to the ground, improper drum storage, and incineration of hazardous wastes, including chlorinated hydrocarbons.

The mechanism for future releases to the soil and air include deterioration and/or disturbance of the containers present at the Site. Contaminants from the soil and ash piles could become airborne if disturbed.

5. NPL status

Bayonne Barrel and Drum is not an NPL site.

The ATSDR has provided a health consultation for the Removal Program in order to determine if contaminants detected on-site are a public health concern (see Appendix 1). Their conclusion is that the Site could pose a health threat to vagrants, future workers or others engaged in activities on-site that come in contact with or disturb the ash piles. The Site also poses a fire and/or explosion threat.

B. Other Actions to Date

1. Previous actions

EPA's RCRA program had been involved with the Site for a number of years. However, several attempts to litigate and negotiate an owner/operator and/or third party site closure/clean-up proved to be unsuccessful.

There have been no other previous federal or private actions taken to mitigate the threats presented as a result of the Site's operation.

In June and July of 1992, box trailers containing drums of material in excess of residual amounts and displaying the RCRA characteristic of ignitability were abandoned at the Site. EPA conducted a removal action in March, 1993 to mitigate the threats presented by the material contained in the abandoned trailers. It was determined that the trailers were not associated with the former activities of Bayonne Barrel and Drum.

2. Current actions

A CERCLA emergency removal action was initiated at the site on July 14, 1994 to contain, secure, stabilize, inventory, sample and identify the hazardous wastes and substances found at the site. Verbal authorization to initiate this action was provided by the ERRD Director on July 14, 1994. Currently, there are no other federal or private actions taking place at the Site.

C. State and Local Authorities' Role

State and local actions to date

The NJDEP sent a letter to the ERRD requesting that EPA stabilize the Site by inventorying, characterizing and disposing of the abandoned materials at the Site.

Until recently, the Site had been handled as a developer site under an NJDEP Administrative Order on Consent (AOC). However, the developers decided that it was not feasible to develop the Site and subsequently declined to initiate the removal action.

2. Potential for continued state/local response

Other than discussed above, there are no other state/local actions taking place at the Site. The State and local government agencies are not able to take timely response actions. The county government does not have the necessary resources to conduct the required cleanup actions. Should the sale of the property take place, the NJDEP would take responsibility of the Site, as previously planned.

III. THREAT TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Based on the RSE's findings, the conditions at the Site meet the requirements of Section 300.415(b) of the National Contingency Plan (NCP) for the undertaking of a CERCLA removal action. Factors from Section 300.415(b)(2) that support conducting a removal action at the Site include:

- (i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, or pollutants, or contaminants;
- (iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;
- (iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;
- (v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;
- (vi) Threat of fire or explosion; and
- (vii) The availability of other appropriate federal or state response mechanisms to respond to the release.

No other government entity can address the Site within an appropriate time frame. As a result, the NJDEP has formally requested EPA to undertake a removal action at this site.

A. Threats to Public Health or Welfare

Due to the many CERCLA listed hazardous substances that are currently present at high concentrations in the facility, there is a potential for exposure to anyone that enters the building and to the nearby persons that either work or reside in the affected area. Section II.A.4 discusses the releases and potential releases that can occur at the Site.

The main threats present at the Site are exposure through direct human contact with the ash piles, the contents of the drums, and the soils. The threat of a potential fire exists due to vandalism and the activities of vagrants and scavengers. In addition, the concentrations of organic solvents detected in one of the drums stored within the building presents the potential for fire. Although a fence surrounds the Site, there are holes cut in several areas and gates have been removed that allow for access to the Site. Additionally, the portion of the fence that runs along the New Jersey Turnpike entrance ramp is only four feet high.

The January 8, 1992 Health Consultation conducted by ATSDR concluded the following:

- 1. The site could pose a health threat to vagrants, future workers, or others engaged in activities on-site that come in contact with or disturb the ash. Another concern is the potential for youngsters being exposed to contaminated dust that has been carried home on the boots and clothes of workers.
- Drums containing high levels of VOCs may pose a fire, explosion, or physical hazard.
- 3. Migration of site related contaminants by wind erosion or other environmental transport mechanisms to nearby businesses or residences in quantities sufficient to pose a health threat are unlikely.
- 4. The fence surrounding the site does not adequately restrict access to the site.

Abandoned sites are typically attractions for children and vagrants. Therefore, populations most likely to be exposed are vagrants who may enter through breaches in the fence to occupy abandoned buildings, future workers employed for cleanup activities on-site, or for future commercial operations. For those who might enter the site, exposures to contaminated soil/ash could occur through inhalation, ingestion or through direct dermal contact. In addition to on-site exposures, future workers or those involved in cleanup activities could also inadvertently carry contamination on their clothes and shoes to their homes exposing other family members.

PCB are a group of organochlorine chemicals that because of their toxicity characteristics in animals and in humans are often a

concern at hazardous waste sites. Maximum levels of total PCBs identified during the last sampling were measured in the ash at a concentration of 408 ppm. Toxicologic data and potential exposure scenarios suggest that it is unlikely that any short-term (2 weeks or less) or intermediate duration (1 year or less) exposures to PCB alone by any route would result in adverse health effects. However, the presence of PCB's in solvents and hydorcarbons, such as this site, greatly magnify the adverse health effects of the material as a whole.

B. Threats to the Environment

Hazardous substances are present in the soils and the ground water beneath the Site. Due to the industrial setting that the Site is located in, there does not appear to be a threat to sensitive ecosystems or an exposure to hazardous substances by nearby animals and the food chain. The ground water in the general area is not used for drinking water purposes.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COST

A. <u>Proposed Action</u>

1. Proposed actions description

The objective of this removal action is to reduce the threat of release and the potential for exposure through direct human contact and on-site releases. The proposed action will involve the following:

- site security including 24-hour guard service, repair and maintenance of the fence and gates, additional fencing to restrict access to areas of highly contaminated soils, and the posting of warning signs;
- collection, inventory, stabilization and identification of all containerized material (drums and tanks);
- overpacking of all drums of questionable structural integrity that contain material;
- securing of the ash piles to prevent access and to minimize the migration of hazardous constituents;
- sampling and analysis of debris and soil piles; and
- on-site staging of material until its final disposition can be determined.

2. Contribution to remedial performance

The Site is not on the NPL and there are no plans for its inclusion, at this time. The proposed stabilization is consistent with any long-term clean-up at the Site.

3. Description of alternate technologies

As this action is an emergency removal to stabilize the site under limited funds, the consideration of alternative technologies does not apply.

4. Engineers evaluation cost analysis (EE/CA)

Due to the emergency nature of this removal action, an EE/CA will not be prepared.

5. Applicable or relevant and appropriate requirements (ARARS)

ARARS within the scope of this project to stabilize the Site, including RCRA and the Toxic Substances Control Act (TSCA), that pertain to the collection and stabilization of hazardous wastes and substances, will be met to the extent practicable.

6. Project schedule

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Measures to mitigate the threats present at the Site and as outlined in the objectives of this removal action were initiated immediately. An Emergency Response Clean-up Services (ERCS) contractor was selected and site security (24 hour guard) was initiated on July 14, 1994. EPA and ERCS responded to the Site on July 15, 1994. A full mobilization with the manpower and equipment necessary to complete the objectives of this action was initiated on July 18, 1994. It is estimated that the objectives of this action can be completed within four weeks.

B. <u>Estimated</u> Cost

1. Extramural Costs

Regional Allowance Costs	•
Cleanup contractor cost including labor, equipment, materials, laboratory analysis	\$650,000
20% contingency	\$130,000
ERCS Contractor Costs	\$780,000

Other Extramural Costs Not Funded from the Regional Allowance

TAT Cost, including multiplier costs \$ 230,000

EXTRAMURAL COSTS \$1.010.000

Intramural Direct Costs

INTRAMURAL COSTS \$ 125,000

TOTAL, REMOVAL PROJECT CEILING \$1,135,000

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed action to contain and stabilize the hazardous substances present at the Site (drums, ash piles and tanks) will increase the potential for a fire and/or explosion due to arson, incidental trespassing and the activities of vagrants and scavengers. Although most of the Site is fenced, there are numerous access points.

The deteriorated condition and improper storage of material contained in tanks and drums greatly increases the potential for the continued release of hazardous substances into the environment. The manner in which known hazardous wastes and substances are stored (uncovered piles exposed to the elements) increases the potential for off-site migration and continued release into the environment.

VII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues associated with this removal action:

VIII. ENFORCEMENT

In 1984, the EPA issued a Consent Agreement and Consent Order to Bayonne Barrel and Drum for operating a TSD facility without the required permits. The United States Department of Justice (USDOJ) filed suit against the Site in 1988 for continued RCRA and TSCA violations and failure to comply with the 1984 EPA consent order. A RCRA closure Plan for the Site was submitted to the NJDEP on January 4, 1990, but was never formally reviewed because no legal consent instrument was ever agreed upon between the Department and the receiving owners of the Site.

Bayonne Barrel and Drum went into bankruptcy, under Chapter 11, in the early 1980's. The principle owner of the property died on April 13, 1991.

In 1989, the USDOJ ordered Bayonne Barrel and Drum to remove the hazardous materials present at the Site, starting with the PCB contaminated waste piles. Some effort was made to remove the

waste piles, but the effort was abandoned upon the death of the owner/operator.

At the current time, no viable Potentially Responsible Parties (PRPs) have been identified that are willing and able to continue the current EPA removal action. EPA will continue to search for PRPs to conduct the next phase and to recover costs incurred.

IX. RECOMMENDATIONS

This decision document represents the selected removal action for the stabilization of the Site located at 150-154 Raymond Blvd. in Newark, New Jersey. This document was developed in accordance with CERCLA, as ammended, and is not inconsistent with the National Contingency Plan (NCP). This decision is based on the admintrative record for the Site.

Conditions at the Site meet the NCP Section 300.415(b)(2) criteria for a removal action. This Action Memorandum confirms the verbal authority of Kathleen Callahan, Director of the ERRD, for a total project ceiling of \$200,000 and to request a ceiling increase to \$1,135,000. Sufficient funding is available in the current Advice of Allowance to finance this project.

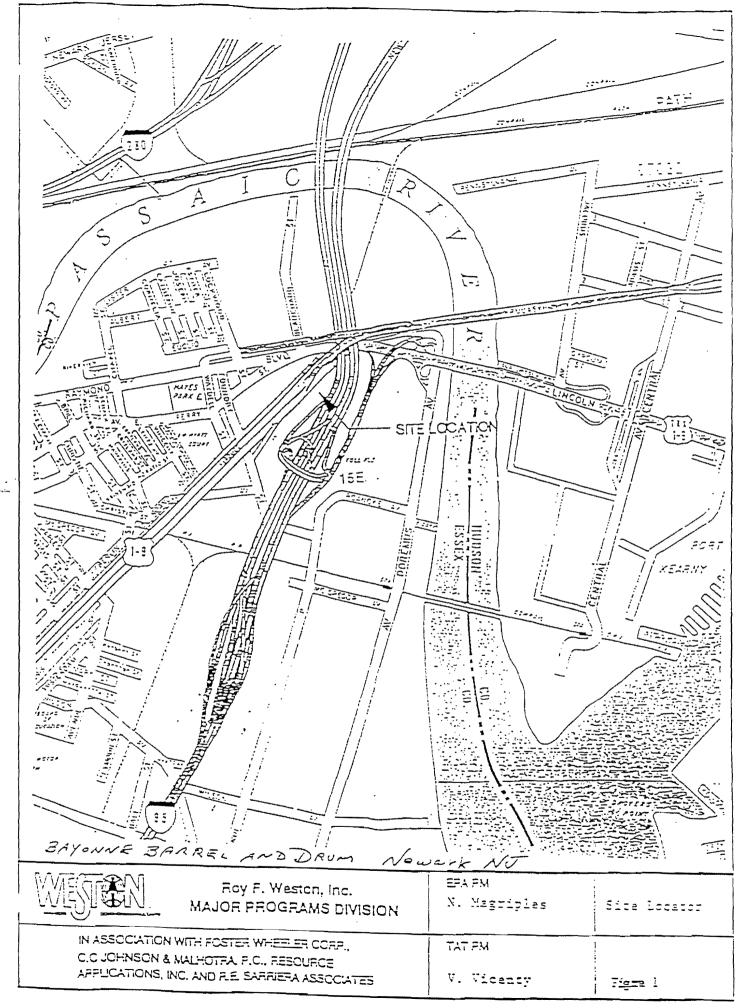
Please indicate your approval and authorization of funding for a removal action at the Bayonne Barrel and Drum Site, Newark, New Jersey, as per current Delegation of Authority, by signing below.

APPROVAL:		DATE:	
	William J. Muszynski, P.E. Deputy Regional Administrator	,	
DISAPPROVAL:		DATE:	
	William J. Muszynski, P.E. Deputy Regional Administrator		

cc: (after approval is obtained)

- W. Muszynski, DRA
- K. Callahan, ERRD-D
- R. Salkie, ERRD-ADREPP
- G. Zachos, ERRD-RAB
- J. Witkowski, ERRD-RAB-TSS
- , J. Marshall, EPD
 - D. Karlen, ORC-NJSUP
 - M. Seidenberg, ORC-NJSUP
 - R. Gherardi, 'OPM-FAM
 - S. Murphy, OPM-FAM
 - C. Moyik, ERRD-PS
 - D. Dietrich, 5202G
 - T. Eby, 5202G
 - K. Delaney, NJDEP
 - M. Pederson, NJDEP
 - J. Smolenski, NJDEP
 - C. Kelly, TAT

FIGURE 1



APPENDIX 1



From

Tο

February 11, 1992

Arthur Block Aso

Senior Regional Representative

Bayonne Barrel and Drum Site, Subject Essex County, Newark, New Jersey

> Nick Magriples ERRD-RA, Edison

The Agency for Toxic Substances and Disease Registry has issued the official health consultation on the B & D Site requested by the EPA Removal Program. Please review the document and advise on the conclusions and recommendations of the consultation.

If you should have any questions, please do not hesitate to call me at (212) 264-9255.

Attachment

Kathy Callahan Bill McCabe Richard Salkie John ∜itkowski George Buynoski Bob Williams Hal Emmett Timothy Walker Greg/Ullirsch Jim/Pasqualo

Memorandum What should we de about this

Memorandum

January 8, 1992

Chief, TSS, ERCB, DHAC, ATSDR (E32) \
Environmental Health Scientist, TSS, ERCB, DHAC, ATSDR (E32)

Bayonne Barrel And Drum Site (A089)
Essex County, Newark, New Jersey

Arthur Block
Public Health Advisor
ATSDR Regional Services
U.S. EPA Region II

Through: Director, DHAC, ATSDR (E32)

Chief, ERCB, DHAC (E32)

BACKGROUND AND STATEMENT OF ISSUES

The Agency for Toxic Substances and Disease Registry (ATSDR) was requested by the Environmental Protection Agency (EPA) in Region II to comment on the public health implications posed by contaminants present at the Bayonne Barrel and Drum site. This site was the subject of a health consultation written by ATSDR on February 6, 1987 [1]. The site is now inactive, but at the time of that report, the facility still had limited usage as a truck repair and shipping container storage area.

Bayonne Barrel and Drum is a former drum reconditioning facility that incinerated contents of drums that arrived at the plant. It is located between the Pulaski Skyway and the New Jersey Turnpike in a heavily industrialized area of Newark, New Jersey. A theater is located approximately 1/4 of a mile southwest of the site, and the nearest residential area is approximately 1/2 a mile to the west [2]. The site is fenced, but the fence contains breaches and is low enough in some places to allow easy access onto the property. The future use of the site has not yet been determined [2].

There are several abandoned buildings on site, one of which contains an ash pile that was generated from incineration activities that occurred at the facility. In the same building, approximately 150 drums are present containing predominantly ash. Some of the drums contain aqueous material [3]. Several of the drums have leaked, and others are in poor condition. Ash piles are also located in the courtyard area and in the southwest corner of the property. The ash pile that is situated in the southwest corner of the property measures 50' X 120', and is also four feet in height [3]. The ash piles have been described as having a sludge-like consistency not prone to generating fugitive dusts [1].

Several surveys were conducted from 1984 through 1988, and included sampling and analysis of soils, ash, and aqueous (drum) materials on site [3,4]. Elevated levels of volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), heavy metals, and other contaminants were detected on site.

The concentration of contaminants varied within the ash piles and also between the different piles located on the site. Two PCBs, Aroclors 1248 and 1254, were measured in the ash at a combined concentration of 408 parts per million (ppm) [3]. The ash and area immediately adjacent showed elevated levels of cadmium (1,300 ppm) and lead (8,400 ppm) [1]. The ash also exceeded the EP TOX test limit for cadmium (>1.0 mg/l) and lead (>5.0 mg/l) indicating a high leachability. Toluene diisocyanate and chromium were also detected in the ash, but at levels below health concern.

PCBs were also detected in the soils at a depth of 0-1 feet at a maximum concentration of 65 ppm. Soil contamination occurred at five to seven feet below the surface (near groundwater table) where elevated levels of petroleum hydrocarbons (59,000 ppm) and PCBs (141 ppm) were detected [5].

Aqueous samples taken from one of the drums located in the ash storage room contained benzene (92 ppm), chlorobenzene (78 ppm), ethylbenzene (1,200 ppm), toluene (2,400 ppm), tetrachloroethylene (62 ppm), and xylene (10,000 ppm) [3].

According to the EPA on-scene coordinator (OSC), on-site realtime air monitoring was conducted with an organic vapor analyzer with a flame ionization detector (FID) and with an instrument equipped with a photoionization detector. Ambient levels of VOCs were reportedly below the detection limit (approx. 1 ppm) of the instruments [2]. Sampling locations were not identified.

The Erunswick Shale aquifer that underlies the site has been heavily contaminated from numerous industrial sources in the area and is not used for drinking water or other purposes that would involve human ingestion, inhalation, or direct dermal contact.

DISCUSSION

Abandoned sites are typically attractions for children and vagrants. However, it is unlikely that children will access this site since the facility is situated between two major highways and 1/2 mile from the nearest residence. Therefore, populations most likely to be exposed are vagrants who may enter through breaches in the fence to occupy abandoned buildings, future

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workers employed for cleanup activities on-site, or for future commercial operations. For those who might enter the site, exposures to contaminated soil/ash could occur through inhalation, ingestion or through direct dermal contact. In addition to on-site exposures, future workers or those involved in cleanup activities could also inadvertently carry contamination on their clothes and shoes to their homes exposing other family members.

PCBs are a group of organochlorine chemicals that because of their toxicity characteristics in animals and in humans are often a concern at hazardous waste sites. Maximum levels of total PCBs identified during the last sampling were measured in the ash at a concentration of 408 ppm. Toxicologic data and potential exposure scenarios suggest that it is unlikely that any shortterm (2 weeks or less) or intermediate duration (1 year or less) exposures by any route would result in adverse health effects. Dermal and inhalation routes to PCBs at this site are unlikely to pose any health threats.

Increased risks of adverse health effects could be calculated if chronic oral exposures to PCBs were to occur at the site. Assuming high ingestion levels of soil (100 mg) containing 408 ppm PCEs by a 70 kilogram (kg) adult worker, estimates of chronic doses (0.0006 milligram/kg/day) could be calculated to exceed by about 100 times the ATSDR's minimal risk level (MRL) of 0.000005 mg/kg/day for chronic oral exposure to PCBs [7]. The MRLs are typically based on the most sensitive indicator of observed noncancer toxicity, usually from animal studies, since sufficient human data are not often available. The above MRL is based on signs of immunological changes in monkeys exposed by gavage to PCBs in an oil vehicle every day for more than two years [7]. The lowest dose producing the effect was 0.005 mg/kg/day [7], a dose 10 times greater than the chronic estimated dose to adults working on site. Given the circumstances of experimental exposures (oil vehicle and gavage) and the unlikelihood of an adult chronically ingesting relatively large quantities of soil (100 mg), the levels of PCBs at this site appear to pose only a minimal health threat for non-cancer endpoints. For similar reasons, cancer risks would also be minimal.

A potential health threat may exist for future workers and others who may inhale, ingest, or come in direct dermal contact with lead contaminated ash/soil on-site. The magnitude of the health threat would depend on personal habits and frequency of such activities on-site. In addition to direct exposure, on-site activities could result in contamination of clothing and shoes which could then be carried home exposing children, teddlers, and

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developing fetuses. Young children are at greater risk due to frequent hand-to-mouth activities and the susceptibility of their developing nervous systems to lead.

While children are normally the primary focus of health concerns associated with exposures to lead, studies of occupational exposures of adults to high levels of lead have shown impaired reaction time and memory. Lead exposure has also been linked to weakness in fingers, wrists, and ankles of adult workers [8].

The potential dose of lead that an adult worker would receive is difficult to determine. However, assuming that a worker ingested 100 mg of soil/ash containing 8,400 ppm lead, a 70 kg worker could receive a dose of lead at 0.012 mg lead/kg/day. Two laboratory studies measuring the effects of oral exposure to lead (as lead acetate) in human volunteers, found decreases in erythrocyte aminolevunic acid dehydrase (ALAD) at daily exposure levels of about 0.01 - 0.03 mg lead/kg/day [7]. The decreases in ALAD indicated that interferences with heme synthesis were occurring. In one of the studies, the decreases in ALAD reached their nadir at about 14 days and remained constant for the . remainder of the 21 day study. Decreases were observed as early as 3 days after the initiation of the experiment. Blood lead levels increased from approximately 15 micrograms per deciliter (ug/dL) before the study to 40 ug/dL from ingesting 0.02 mg/kg/day [10]. Other studies have observed peripheral neuropathies (40 ug/dL) and systolic blood pressure increases (30 ug/dL) from lead exposure in the same blood level ranges found in this study [8].

The available data indicate that the lowest dose at which acute exposure (≤14 days) to cadmium demonstrated adverse health effects was for rats that consumed 2 mg/kg/day [9]. At this dose, developmental effects were observed in the young of the exposed rats [9]. At exposures of intermediate duration (15 to 364 days), impaired neurological development occurred in the young of rats ingesting cadmium at doses down to 0.04 mg/kg/day. However, insufficient data are available to assess the developmental effects of cadmium on humans at such doses [9]. The ATSDR chronic oral MRL (exposures ≥365 days) for cadmium is 0.0002 mg/kg/day. This MRL is based on an epidemiological study conducted by Nogawa et al. who observed kidney effects (tubular proteinuria) in humans exposed via food to an estimated 0.002 mg cadmium/kg/day over a lifetime [11]. The MRL was adjusted by an uncertainty factor of ten to account for sensitive individuals in the population. Assuming that an adult consumed 100 mg of ash containing 1,300 ppm cadmium, a 70 kg adult would receive a dose of 0.002 mg/kg/day. This is at the threshold where kidney

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effects were observed by Nogawa et al [11]. However it is very unlikely that prolonged exposures such as those studied by Nogawa would occur on this site, therefore the cadmium does not represent a health concern.

The drums contain relatively high concentrations of VOCs in the aqueous phase. Although ambient air sampling was conducted and detected no VOCs, data are incomplete on where these measurements were taken. Thus, the possibility exists that total VOC vapor levels within or near the drums could reach explosive limits. A spark or ignition source near the drums could result in an explosion or fire. Vagrants or trespassers entering the building may produce an ignition source through smoking or by the lighting of fires for warmth. Based on the small amounts of aqueous material stored on site, the potential impact of fires and/or explosions on the nearby community would be limited. Depending on how the drums are stored and stacked, they may also represent a physical hazard to those who gain access to the site.

The potential for off-site contamination via fugitive dust emissions from the ash piles and on-site containers appears to be negligible. The sludge-like consistency of the ash would prevent significant amounts of contaminated dust from migrating to nearby properties. Given the low concentrations of VOCs detected in the ash piles and in outdoor soils, and the distance to the nearest residence (1/2 mile), the threat of VOC emissions to nearby residents at concentrations of health concern also appear unlikely.

CONCLUSIONS

- 1. The site could pose a health threat to vagrants, future workers, or others engaged in activities on-site that come in contact with or disturb the ash. Another concern is the potential for youngsters being exposed to contaminated dust that has been carried home on the boots and clothes of workers.
- Drums containing high levels of VOCs may pose a fire, explosion, or physical hazard.
- 3. Migration of site related contaminants by wind erosion or other environmental transport mechanisms to nearby businesses or residences in quantities sufficient to pose a health threat are unlikely.
- 4. The fence surrounding the site does not adequately restrict access to the site.

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RECOMMENDATIONS

- Restrict access to the site to prevent the entry of vagrants seeking shelter.
- If the status of the site changes, ensure that the contaminants are at a safe level for the type of business/activities that would occur on site.
- Consider removing barrels to eliminate safety hazards.

If any additional information becomes available or if any clarification is needed, please do not hesitate to contact this office at (404) 639-0616.

Allan S. Susten, Ph.D., DABT

Timothy Walker, M.S.P.H.

Page 7 - Arthur Block

REFERENCES

- Report on Bayonne Barrel and Drum, ATSDR Office of Health Assessment, February 6, 1987.
- Telephone conversation with Nick Magriples EPA, OSC, November 13, 1991
- 3. RCRA Enforcement Inspection, Bayonne Barrel and Drum, June 2, 1988.
- 4. Report on Bayonne Barrel and Drum site, Dan Raviv Associates, March 1987.
- 5. Report on Bayonne Barrel and Drum, Diversified Environmental Resources Inc., January 3, 1990.
- 6. ATSDR Health Assessment Guidance Manual (draft), July 1990.
- 7. Draft For Public Comment, ATSDR Toxicological Profile for Selected PCBs, October 1991.
- 8. Draft For Public Comment, ATSDR Toxicological Profile for Lead, October 1991.
- 9. Draft for Public Comment, ATSDR Toxicological Profile for Cadmium, October 1991.
- 10. Stuik, E.J., 1974. Biological response of male and female volunteers to inorganic lead. Int Arch Arbeitsmes 33:83-97 [as cited in Draft ATSDR Toxicological Profile on Lead].
- 11. Nogawa et el. 1989. A dose response analysis of cadmium in the general environment with special reference to total intake limit. Environ Res 48:7-16 [as cited in Draft ATSDR Toxicological Profile on Cadmium].

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M. Lichtveld

ATSDR:DHAC:ERCB:TSS:TWALKER:mrg:1/9/92:639-0616 DOC.:L:BAYON2.CON

DATE:

August 19, 1988

SUBJECT:

Transmittal of RCRA Enforcement Inspection for Bayonne Barrel & Drum

M:

Michael Ferriola, Environmental Scientist Jourca Source Monitoring Section William Viewed

TO:

George Meyer, Chief Hazardous Waste Compliance Branch

Enclosed is a copy of the inspection report for the RCRA Enforcement Inspection conducted at Bayonne Barrel & Drum on June 2, 1988.

attachments

cc: Ted Gabel w/o attachments

RCRA Enforcement Inspection

Bayonne Barrel and Drum Newark, New Jersey

NJD009871401

June 2, 1988

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U.S. Environmental Protection Agency

- M. Ferriola, Environmental Scientist
- R. Coleates, Environmental Scientist
- R. Morrell, Geologist
- D. Dugan, Environmental Scientist
- J. Wilk, Environmental Scientist

Bayonne Barrel and Drum

Frank Langella, Company owner

Report Prepared by:

Michael Ferriola, Environmental Scientist Source Monitoring Section

Approved for the Director by:

Richard D. Spear, Chief Surveillance and Monitoring Branch

RCRA ENFORCEMENT INSPECTION

Objective

A RCRA sampling inspection was conducted at Bayonne Barrel and Drum (BBD) on June 2, 1988, by members of EPA's Region II, Environmental Services Division. This investigation was requested by the Hazardous Waste Compliance Branch (HWCB) in New York. The scope of this inspection was to determine if BBD is actively storing hazardous wastes on site and establish present site conditions as compared to the original sampling investigation performed by EPA in 1984. A general site map (Figure 1) is attached which illustrates the approximate sampling locations.

Survey Participants

Frank Langella, Company owner - Bayonne Barrel and Drum

Tom Colligan, Operations Manager - Interwaste Services Company (ISCO) James Wilson, Field Engineer - ISCO
Andy Kondracki, Environmental Controls Manager - ISCO
Mike Young, ISCO

Mike Ferriola, Environmental Scientist - U.S. EPA
Richard Coleates, Environmental Scientist - U.S. EPA
Robert Morrell, Geologist - U.S. EPA
David Dugan, Environmental Scientist - U.S. EPA
John Wilk, Environmental Scientist - U.S. EPA

* Personnel from Interwaste Services Co. (ISCO) were contracted by BBD to collect split samples and observe EPA sampling activities.

Discussion

On June 2, 1988, a RCRA sampling inspection was conducted at Bayonne Barrel and Drum, located at 150 Raymond Boulevard in Newark, New Jersey. Two previous sampling inspections were attempted. However, due to an access denial on May 12 and inclement weather on May 19, those inspections were not completed. Access was denied on May 12 by BBD's attorney, Damon Sadita, after being on site for approximately one hour and actively engaged in sampling. EPA was informed by their attorney that investigative personnel (EPA) should not be on site. This arrangement was made as per an agreement with the Department of Justice in Washington, D.C., since the site was already in litigation. A second sampling visit was scheduled, after consent by EPA and BBD attorneys, exactly one week later on May 19, 1988. Due to excessive rain the previous 36 hours, sampling had to be postponed once again.

Site Description

Currently, BBD is an inactive drum reconditioning facility which has filed for bankruptcy under Chapter 11 and is only staffed by a few maintenance/ security people. The plant has undergone some surficial cleaning/house-keeping which includes the arrangement of empty drums in orderly rows, grading of empty lots on the south side of the buildings, and removal of most equipment from the building interiors. In addition, the ash pile on the southwest corner of the property has been covered with a sheet of clear plastic. During EPA's initial attempt to sample, the ash pile was found uncovered. However, on a second sampling attempt, the contractor representing BBD had covered the ash pile with several rolls of clear sheet plastic. During the third and actual sampling inspection, the pile remained covered.

Even though the plant "appears aesthetically cleaner", there remain a few areas which appear grossly contaminated. The drum and ash storage room contains a large ash pile from incineration activities. Also, approximately 150 drums remain which contain ash or aqueous materials. A few drums had holes punched in their sides which allowed the contents to stain the surrounding floor space. A couple of drums had been inverted to prevent their contents from leaking and others were severely dented and/or crushed. Most drums contained ash which looked similar in nature to the ash pile in the middle of the room. See the attached photographs for illustrations. Approximate building locations and sampling sites are depicted in Figure 1. In addition, an ash pile remains in the courtyard between the incinerator and the furnace room building. The ash residue was multicolored, as shown in the attached photographs.

Sampling locations and methodology

In order to fulfill the objectives of this investigation, a total of seven predetermined locations were selected. The sampling network and rationale was based upon a previous sampling inspection by EPA (2/84) and new locations proposed by the HWCB during a presurvey walk-through conducted on April 15, 1988. Based upon this information, the following points were selected:

- 1 Furnace room building
- 2 Courtyard area
- 3 Drum and ash storage room (near incinerator)
- 4 Waste ash pile (near rows of drums)
- 5 Oil separator trench
- 6 Pump House (near oil separator trench)
- 7 Underground tank (near toluene pump)

Approximate sample locations are depicted in Figure 1 which correspond to the sample numbering system above. The analyses requested included EP Toxicity (metals only), volatile organic analysis (VOA), non-volatile organic analysis (NVOA), PCB's, and also pH for aqueous samples. In addition, ignitability was analyzed on the drum sample containing an aqueous solution (sample # 112213).

The following is a list of sample identification numbers, corresponding sample locations, and descriptions of collection techniques:

Sample #112201 - This sample was collected from the floor of the furnace room building as depicted in picture #10. The ash sample was collected at random from several locations using a dedicated polypropylene scoop. The sample was then mixed in a stainless steel tray to form a composite sample, which was subsequently split for EPA personnel and the BBD contractor. The stainless steel tray was lined with new "Whatman Benchcoat" paper each time a sample for ash was collected to prevent cross contamination among different sampling locations.

Sample #112202 - Courtyard area ash sample collected at random using the same techniques as listed in sample #112201. Photographs #5 - 9 illustrate the sample location and collection techniques. Make special notice of the various colors encountered in the ash pile and sample collected.

Sample #112203 - Drum and Ash storage room ash sample collected in a manner identical to that listed in sample #112201. Level B personal protective equipment (PPE) was worn in this area due to the presence of hazardous organic vapors, as indicated by air monitoring equipment. Pictures #15-16 illustrate sampling technique and level of protective equipment required.

Sample #112204 - This sample number represents the "WEST" half of the waste ash pile near the drum storage area. An imaginary line was drawn through the ash pile to delineate an "EAST" and "WEST" half, for the purpose of sampling only. Figure 1 shows the relative location of the ash pile and illustrates the approximate boundary drawn to delineate the two halves. Photographs #17 and 19 illustrate the entire waste ash pile and sample collection in the "WEST" half, respectively. Level C PPE was worn during sample collection and compositing. Since the ash pile was covered with polyethylene plastic sheeting, holes were cut at random to enable sample collection. Samples were collected using a dedicated polypropylene scoop and throughly mixed in a stainless steel tray to form a composite sample.

Sample #112205 - Aqueous samples were collected from the oil separator trench using an I-Chem Series 300, one quart glass jar attached to an aluminum rod and clamp. Samples were poured directly from the glass jar into the respective sample containers.

Sample #112206 - Aqueous samples were collected from the pump house using the same techniques mentioned in sample #112205. Picture #1 illustrates the pump house and rod/clamp used for sample collection. A duplicate sample, #112211, was also collected at this location.

Sample #112207 - Aqueous samples were collected from an underground tank near the toluene pump. The sample was collected by taping an I-Chem Series 300 glass jar to an aluminum rod. The sample was collected in this manner due to the size of the access standpipe. In addition, the aluminum rod was shaped to fit the angled opening of the tank. See picture #3, which illustrates sampling of the underground tank.

Sample #112208 - In addition to collecting ash samples from the courtyard, aqueous samples were also collected as depicted in photgraph #4. Ponded water samples were collected in a low lying area adjacent to the courtyard ash pile and incinerator. Sample collection technique was by direct filling an I-Chem Series 300 glass jar and pouring into the appropriate sample containers.

Sample #112212 - This sample number represents the "EAST" half of the waste ash pile near the drum storage area. Photograph #18 depicts sampling the "EAST" half of the ash pile while wearing Level C PPE. Sample collection techniques were the same as in sample #112204. A series of random grab samples were collected using a dedicated polypropylene scoop and then composited in a stainless steel tray. After the sample was throughly mixed, the respective sample containers were filled.

Sample #112213 - An aqueous sample was collected from a "RED" drum in the drum and ash storage room as depicted in photographs #11 - 12. Level B PPE was worn due to the presence of high concentrations of unknown organic contaminants. The drum was sampled using a precleaned, dedicated teflon bailer. Pictures #13 - 14 indicate the particular red drum which was sampled and other drums in the immediate area. Note the condition of the drums in all four photographs. Most of the drums contained ash which looked similar in nature to the ash pile in the center of the room. However, some of the drums contained liquids of unknown content. Many of the containers were in very poor condition, some with holes and a few inverted to prevent their contents from leaking onto the floor.

All samples were collected in accordance with established EPA, Region II protocols. Standard EPA Chain of Custody procedures were employed throughout this inspection and a receipt for samples was signed by the facility representative (ISCO), as required under section 3007 (a) of RCRA. All samples collected by EPA were split with ISCO during this investigation (containers for BBD samples were provided by ISCO). EPA samples were analyzed at the Region II laboratory in Edison, New Jersey.

Results of Analyses

The results obtained from the samples collected during this investigation are presented in the following tables: Volatile Organics GC/MS scan (Table 1), Non-volatile Organics GC/MS scan (Table 2), and EP TOX Metals (Table 3).

Table 1 presents the volatile organic compounds and concentrations that were detected. The results indicate the presence of volatile organics in all samples collected. Exceptionally high concentrations of volatile organic compounds were found in samples #112212 and #112213. Concentrations ranged from 490 ug/l of trichloroethylene to 10,000,000 ug/l of xylene in those samples.

Table 2 presents the non-volatile organics/PCB compounds and concentrations that were detected. Very high concentrations of non-volatile organics were found in the ash samples, as presented in the attached tables, pages 2a - 2b. In addition, PCB's were found in sample #112212 at 115,400 and 293,970 ug/l for Aroclor 1248 and 1254, respectively. Eigh concentrations of non-volatile organics were also found in the drum sample, #112213.

Table 3 presents the results of analyses for the hazardous waste characteristic of EP Toxicity (metals). The maximum concentration allowed for cadmium (1.0 mg/l) was exceeded in three of the samples collected (#112201, 112203, and 112204). All other EP Toxicity metals contaminants were below the maximum limit allowed, as presented in Table 3.

Aqueous samples were analyzed for pH, and in addition, ignitability analysis was performed on the drum sample. Results of these analyses show that none of the samples analyzed met the criteria of corrosivity or ignitability, as per 261.21 and 261.22. Results are presented below:

Characteristic of Corrosivity

Sample #	· ph (SU)
112205	7.37
112206	6.59
112207	6.28
112208	6.70
112213 (drum)	10.9

Characteristic of Ignitability

Sample #	Flash point
112213	> 145°F

Findings and Conclusions

Based upon the sampling results of this investigation and a visual inspection of the site, Bayonne Barrel and Drum is in violation of existing RCRA and TSCA regulations. Analytical results indicate that the waste ash pile, drum and ash storage room ash, and furnace room ash are a RCRA hazardous waste in accordance with 40 CFR Part 261.24. The ash exhibits the characteristic of EP Toxicity for cadmium (D006).

Results of PCB analyses show concentrations for Aroclor 1248 and 1252 to be 115 and 293 mg/l, respectively. This is a violation of TSCA regulations 40 CFR Part 761.60.

The waste ash pile was still in violation of 40 CFR Part 265, Subpart L (waste piles) during the initial site visit on May 12, 1988. The pile was subsequently covered by sheet plastic on May 19, 1988. However, a containment system to prevent and collect run-off or eliminate a discharge to groundwater does not exist.

The drum and ash storage room contained many drums, approximately 100-150, which were not marked as a hazardous waste and were apparently stored in excess of 90 days.

In addition, numerous organic compounds were found throughout the site in varying concentrations. All results are listed in Tables 1-3.

Ash samples

PARAMETER/SAMPLE#	#112201	<u></u> #112202	#112203	#112204	#112212
Denzene					İ
Carbon Tetrachloride			1 28 H		
Chlorobenzene			1 540 보]	
1,2-dichloroethane					
l,l,l-trichloroethane	96 M		1 340 M		64 2
l,l-dichloroethane					l _
1,1,2-trichloroethane		1	-		1 680 X
1,1,2,2-tetrachloroethane					
Chloroethane				1	ļ
Chlorofora		28 J	1 60 M		1 24 H
l,l-dichloroethylene					1
1,2-trans dichloroethylene					ļ
1,2-dichloropropane	1				
1,3-dichloropropylene	1				
Ethylbenzene	140 M	570	1 1500	100 M	5200
Methylene chloride					
Methyl chloride					
Methyl bromide					
Bromoform			1		
Dichlorobromomethane	-				
Chlorodibromomethane					
Tetrachloroethylene		80 M	1200	140 M	1300
Toluene	310 M	1300	2700	200 M	112,000
Trichloroethylene ·	82 M	46 M	550	110 M	490
Vinyl chloride					
Xylene		1200	3200		1 4600
Styrene					1 2500

All concentrations in ug/kg.

M = above the detection limit, but below the level of quantification

J = estimated value

	#112205	1112206	Dup.	#11220Z	#112200	#112212
PARAMETER/SAMPLE#	#112205	1112200	112211	#112207	#112208	#112213
<u>Deniene</u>	1		44.44			92,000
Carbon Tetrachloride	<u> </u>	!	<u> </u>			1
Chlorobenzene	<u> </u>	9.4	7.3			78,000
1,2-dichloroethane		1				1
1,1,1-trichloroethane	İ	5.2	4.3		_	
l,l-dichloroethane		11	8.8			
1,1,2-trichloroethane		1.3M	1.0%			<u> </u>
1,1,2,2-tetrachloroethane						
Chloroethane						
Chloroform	2.6 M	1.6	5.5	10		
l,l-dichloroethylene		1 .			1	1
1,2-Trans dichloroethylene	3.7 M	55	41	2.3		
1,2-dichloropropane	1					
1,3-dichloropropylene	1	İ			i —	
Ethylbenzene	l	130	110	1.8 M	14 M	11,200,000
Methylene chloride						
Methyl chloride						
Methyl bromide						-
Bromoform	_					
Dichlorobromomethane				}		
Chlorodibromomethane.	1 .			1		
Tetrachloroethylene	<u> </u>	2.21	1.64	<u> </u>		62,000
· Poluene	2.6 M		540	0.4 M	600 J	12,400,000
Trichloroethylene	1 .	4.5	3.4	0.5 M	i -	i ' '
Vinyl chloride		18	12		İ	
Xylene	<u>ਂ</u> 5.0 ਮ	,	220	4.1 J	60 J	10,000,000
4-methyl-2-pentanone	1	21	1 17			1
Styrene	 		38	1	1	

All concentrations in ug/l.

M = above the detection limit, but below the level of quantification

J = estimated value

Ash samples

ARAMETER/SAMPLE #	112201	112202	112203	112204	112212
i-chlorophenol I					i
2-nitrophenol I					1
phenol	}	2350 J	104,400 J	1	/
2,4-dimethylphenol			2,350 MI		
2,4-dichlorophenol					1
2,4,6-trichlorophenol					
p-chloro-m-cresol					
2,4-dinitrophenol					:
4,6-dinitro-o-cresol					1
pentachlorophenol					1
4-nitrophenol				1	í
1,3-dichlorobenzene					}
l,4-dichlorobenzene				140 M	;
1,2-dichlorobenzene		330 M	1 5,780 MI	400 M	Ĭ
hexachloroethane				1	1
hexachlorobutadiene					
1,2,4-trichlorobenzene	490 M	620 M	49,200 J	2820 J	
napthalene	2600 J	9910 J	15,050 J	6430 J	1210 #
bis(2-chloroethyl) ether					
bis(2-chloroethoxy) methane!			5,080 M		
isophorone	*	67 <u>3</u> 0 J	5,060 M	1060 M	
nitrobenzene					
cenaphthylene		1250 M	700 MI	2850 M	
cenapthene		130 <u>M</u>	3,700 MI	450 M	
-fluorene		1520 M	7,375 J	490 M	
hexachlorobenzene					
phenanthrene	1140 M	1880 J	37,380 J	3080 M	220 표 [
anthracene	230 M	1850 M	3,550 M	1240 M	
fluoranthene	650 M	2490 M		1970 J	140 %
aniline	160 M				
2-methyl napthalene	1090 M	3370 J	17,180 J	4490 J	460 🐰
2-methyl phenol			9,600 J		
4-methyl phenol			20,000 J	1140 J	
biphenyl			20,000 J		
dimethyl diphenyl urea			37,200 J	720 0 J	
n-nitrosodiphenylamine				770 ឣ	180 🖽
3,3-dichlorobenzidene				520 M	
benzoic acid				5710 J	
hexane diisocyanate				12,100 J	

All concentrations in ug/kg.

M = above the detection limit, but below the level of quantification

J = estimated value

Ash samples

			[
PARAMETER/SAMPLE#	#112201	#112202	<i>9</i> 112203	#1 12204	#112212
dimethyl phthalate		l 230 ∺	1750 M	170 H	
diethyl phthalate	380 H	890 H	102,930 J	1100 H	
di-m-butyl phthlate	5200 J	35,920 J	90,150 J	6830 J	1980 M
butyl benzyl phthalate	i 2500 H	1 8,070 J	67,530 J	1290 H	1780 M I
ci-n-octyl phthalate	340 H) 5850 H		50 H 1
bis(2-ethylhexyl) phthalate		51,060 J	259,230 J	1 068,88 I	
pyrene	660 11	1 480 H	7500 J	3610 J	200 % [
chrysene	160 %	630 H -	1950 %	2070 보	1
1,2-benzanthracene	110 M	1 400 %	١ 1055 ٪	1850 H	
4-chlorophenyl phenyl ether	1				
benzo(z) pyrene		1 2450 보			1
l,12-benzoperylene					
benzyl alcohol		710 H	1 24,730 J	l 2570 J	
2-methyl alcohol					l i
dibenzofuran	1 250 M	750 H	1 3450 H	360 14	
toluene diisocyanate		340,000 J			
phthalic anhydride		56,000 J			1500 J
naphthalene isocyanate		67,000 J			
2,6 dinitrotoluene			· ·	1	
2,4-dinitrotoluene				120 M	
1,2-diphenylhydrazine	_	1560 M			110 M
3,4-benzofluoranthene	280 M	2950 ឣ			
-:1,12-benzofluoranthene			1		
ihydrotrimethylphenyl ind.				33,000 J	
phenol,2,4-bis(1,1-dimethyl)				1 4590 J	
ylangene			12,500 J		
homosolate			123,000 J	5700 J	
cholestanol			· ·		
PCB-1016					
PCB-1221					
PCB-1232					
PCB-1242	\				
PCB-1248			1		1 293,970
PCB-1254					115,400
PCB-1260	1				

All concentrations in ug/kg.

J = Estimated value.

M = Above the detection limit, but below the level of quantification.

queous samples

			Dup.		1	
PARAMETER/SAMPLE #	#112205	112206	112211	#112207	#112208	#112213
2-chlorophenol						
2-micropherol		1				Ι,
phenol	1.3 X	į	3.2 H		1.4 M	1
2,4-dimethylphenol		1 7.3	111.2 H	0.2 H	6.2	
2,4-dichlorophenol		1		1.1 M		
2,4,6-trichlorophenol		1	i		!	
p-chloro-m-cresol	l	l	1			
2,4-dinitrophenol					l	
4,6-dimitro-o-cresol		ł			1	
pentachlorophenol		1				
4-nitrophenol					1	
1,3-dichlorobenzene	1.1 M	1 0.4 M				2619
1,4-dichlorobenzene	4.2 M	1.5 %		1.6 M		34,200
1,2-dichlorobenzene	1.2 M	1.6 M		0.2 4		167,140
hexachloroethane						
hexachlorobutadiene						
1,2,4-trichlorobenzene	0.8 M	0.5 M	.		0.2 M	393
napthalene		111.7	114.7 M			28,380
bis(2-chloroethyl) ether	•					
bis(2-chloroethoxy) methane	-	1				
isophorone		1 2.4			2.8	109
nitrobenzene						
cenaphthylene					2.5 M	
acenapthene						137
fluorene		1.3 M	1 7.8 H		0.5 %	
hexachlorobenzene		1				
phenanthrene	0.3 M	2.7 H	1 18.7 M	0.2 M	2.8 M	115 1
anthracene					1.6 H	
fluoranthene		1 0.8 M	1	2.2 M	4.2	
aniline	l		I	1 -		<u> </u>
2-methyl napthalene			(11.7 M	J		61,080 J
2-methyl phenol	0.8 M	20.1 J	1 18.5 H		ļ	
4-methyl phenol	I	11.3 J	1 8.0 M		1.9 H	
benzoic acid			54.3 M		6.2	
methylbenzene sulfonamide	179 J				75 J	
methyl ethylbenzene		25.3	J			

All concentrations in ug/l.

M = above the detection limit, but below the level of quantification

J = estimated value

NON-VOLATILE ORGANIC GC/MS SCAN JUNE 2, 1988

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'.queous samples

-		Dup	. 1	1	
PARAMETER/SAMPLE#	#112205	112206 1122		#112208	#112213
dimethyl phthalate		0.4 포			
diethyl phthalate		1 1	1		, !
di-m-buryl phthlate		7.2		1	i
butyl benzyl phthalate	1.1 \(\text{H} \)	110.6 J 46.	3J	7.1 H	
di-m-octyl phthalate		1.6 H 3.	71	0.7 %	Í
bis(2-ethylhexyl) phthalate	1.4 1	113.5 J 106.	8J 4.7 J	1 21.7 J	į
pyrene		1 1.3 MI 7.	9MI 0.1 M	6.5	
chrysene	0.1 H	10.2 % 1.	141	1.8 %	!
1,2-benzanthracene		10.1 %1 0.	5%	0.7 %	1
4-chlorophenyl phenyl ether	1				1
benzo(a) pyrene	0.2 M	0.2 H		1 2.8	i
1,12-benzoperylene		1 0.5 MI		4.3	i
benzyl alcohol		5.3 J 3.	14		
2-methyl alcohol			1	1	!
dibenzofuran	1	0.8 % 2.	041	0.4 M	367
2,6 dinitrotoluene					
2,4-dinitrotoluene		0.6 M			597
1,2-diphenylhydrazine	1 1.7 H	2.0 M	0.1 M		1 26.8 H
3,4-benzofluoranthene	-	0.1 %		2.3 H	
11,12-benzofluoranthene	-	0.2 M		2.5 H	
n,n-dimethyl n,n-diphenyl ure	a 52 J				ı
trimethylbenzene isomers		58.4 J			
rimethyl-1,3 pentanediol		26.3 J			1
n-ethyl-4-methylbenzene sulf.		39.3 J			
tetramethyl butylphenol				27 J	!
methyl napthalene isomers		5.5 M		1.4 M	
ylangene					, oc.
homosolate					
cholestanol		196.6 J 713	2 J 71 J		
PCB-1016					
PCB-1221	(
PCB-1232					
PCB-1242	1	Ī		<u></u>	i
PCB-1248			l l		
PCB-1254	0.403				
PCB-1260					

All concentrations in ug/l.

J = Estimated value.

[·] M = Above the detection limit, but below the level of quantification.

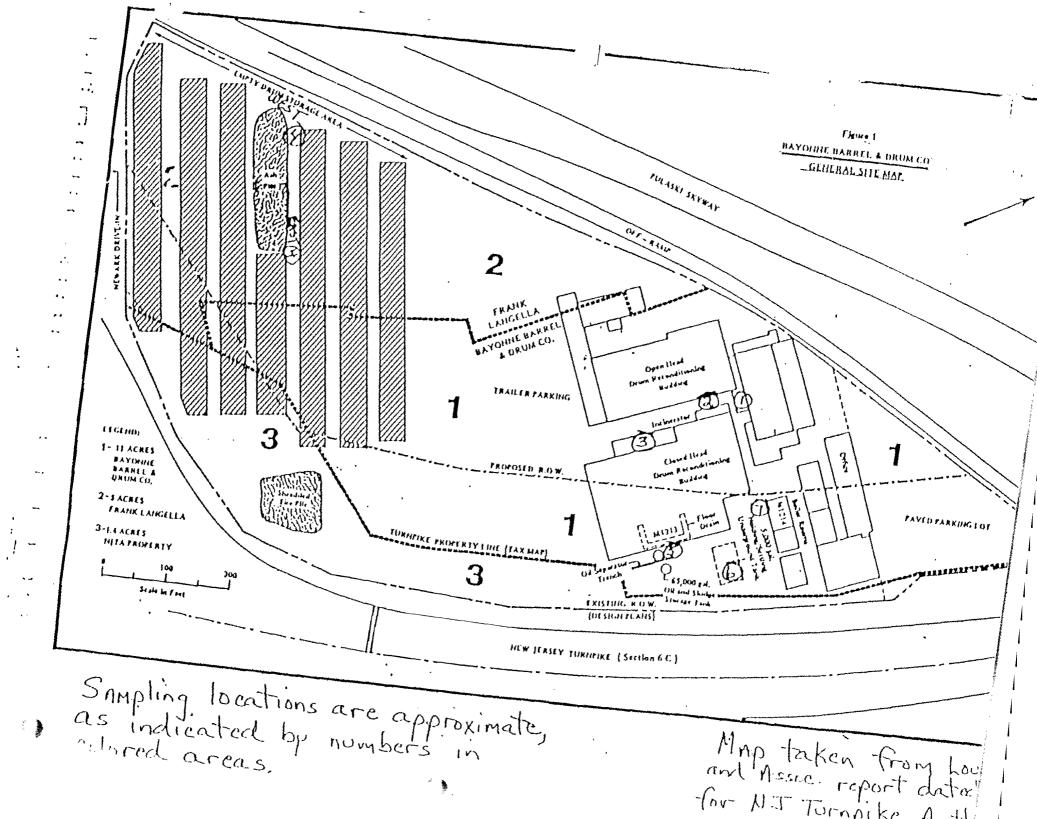
EP TOX METALS DATA JUNE 2, 1988

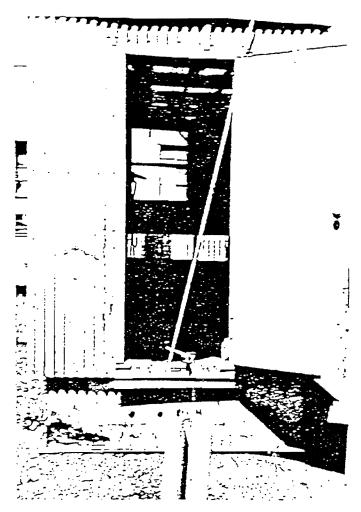
SAMPLE #/PARAMETER	Ag	As	3a _	Cć	Cr	Ħg	Ръ	Se
#112201 (ash)		.01 H	2.84	1.15	Spirite reports		4.72	.03 <u>%</u>
#112202 (ash)	.048#	.02 M	1.86	0.257	****		1.06	.02 H
#112203 (ash)		.04 쎂	3.53	2.84	.36 M	.15	1.69	.53
#112204 (ash)		.04 H	5.02	2.72		.00 <u>07 H</u>	1.67	.04 보
#112205 (lig)		.01 H	0.22%	.027 <u>H</u>		.0002 H	.1 H	
#112206 (liq)	.012 <u>H</u>	.02 M	0.45%			.0003 H		.02 H
#112207 (liq)	 .013 H	.01 M		***				.01 ½
#112208 (lig)		.01 M	0.48M	480° 440°		<u> </u>		.02 M
#112211 (lig)		.01 M	0.28M			 .0003 H		.01 H
#112212 (ash)		.01 M	0.846M	.243			.57	.01 M
#112213 (liq)		1.0 M	.62M		1.6 M	.004 M		2.0 M
Maximum concentratio	 n 5.0	5.0	100	1.0	5.0	0.2	5.0	1.0

Sample #112211 was a duplicate to sample #112206.

All concentrations expressed in mg/l.

M = above the detection limit, but below the level of quantification.





#1. Pump house sampling location. Liquid samples collected at this location. See item #6 on attached site map.



#2. Underground tank, item #7 on attached site map. Measuring total depth of tank.



#3. Sampling underground tank.



#4. Collection of aqueous samples from courtyard area. Item #2 on attached site map.

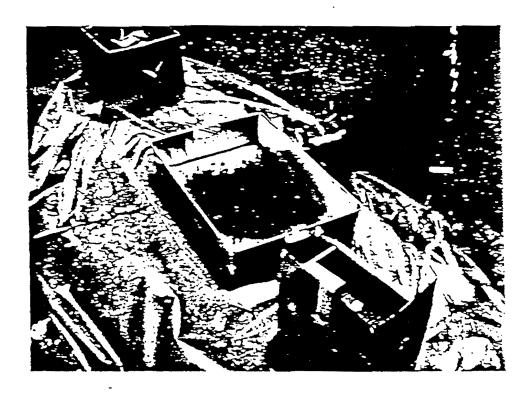


#5. Collection of random, grab composite ash sample from courtyard area.

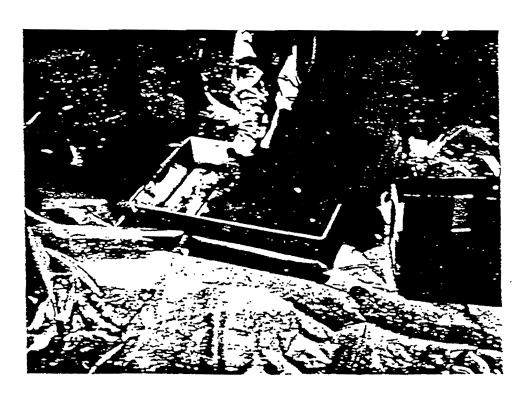


#6. Close-up of ash pile in courtyard, similar
to photo #5.

BAYONNE BARREL AND DRUM Newark, N.J. June 2, 1988 NJD009871401

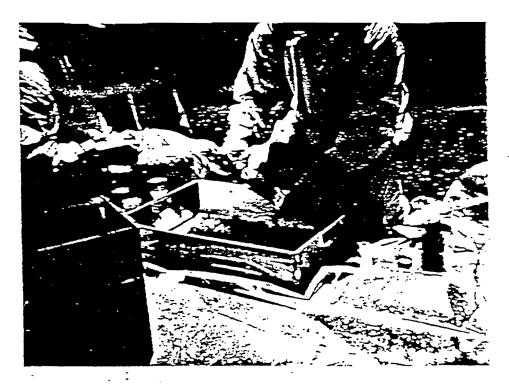


#7. Ash from courtyard area ash pile, ready for compositing.



#8. Compositing ash sample from courtyard area, prior to filling sample containers.

•



#9. Filling POA vial with ash from courtyard
area, item #2 on the attached site map.



#10. Furnace room building, item #1 on the attached site map. Combination ash/soil samples were collected at random from this location.



#11. Sampling "red" drum in the drum and ash
 storage room; item #3 on the attached
 site map.



#12. Overview of some of the many drums in the drum and ash storage room. Note condition of drums and old labels.



#13. "Red" drum which was sampled in the drum and ash storage room.



#14. Another view of drums in the drum and ash storage room.



\$15. Sampling the ash pile in the drum and ash storage room. Note presence of drums in background.



#16. Opposite view of ash pile in drum and ash storage room.

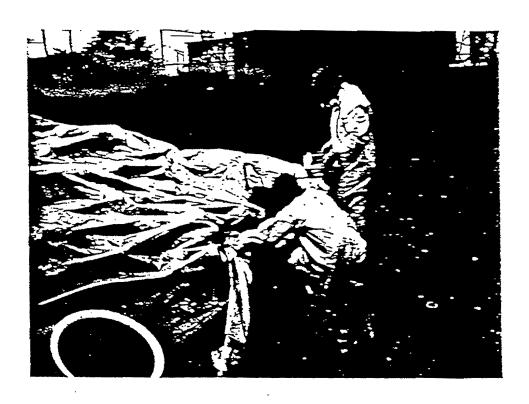
EAST



#17. Waste ash pile, item #4 on the attached site map. An imaginary line was drawn through the ash pile to delineate an EAST and WEST half.



#18. Sampling East half of the ash pile.
Samples were collected at random and manually composited in a stainless steel tray.



#19. Sampling West half of ash pile; item #4 on the attached site map.

10 // Memorandum

Date

.December 9, 1991

Arthur Block | TOTAL Sr. Regional Representative

Subject

Bayonne Barrel and Drum Site/ATSDR Record of Activity Reference Conference Call/November 27, 1991

To

Nick Magriples, OSC, RAB ERRD/RA

As a follow-up to our verbal consultation, please find attached a written copy of the AROA outlining our discussion.

Should you have any questions or concerns, please advise. A written draft consultation will follow shortly for your review and comment.

Attachment

cc:

- G. Buynoski
- B. Williams
- T. Walker
- L. Voyce
- J. Fasqualo

Agency for Toxic Substances and Disease Registry Facsimile Transmission

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	Executive Peris, Building 37, Room 3726
·	639-0700; Fax # 639-0744
	Office of Information Resources Management
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.F+5-264-7662	639-0720; Fax #539-0746
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•	Region 3: 597-0994 Region 8: 564-1647
	Region 4: 347-4486 Region 9: 454-0582.
	Region 5: 886-5789 Region 10:399-2142
Pommenis: portice Have 15 th	Le AROR For Z.B. + Drum.
I will be sading 40.	- Adragat of the Writter
For Pericu 155.	Soor As possible. It you ha
Any 715 - Plens	Soorl As possible. It you have
	BBD - 4.1002

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C_ACLIS #:		Cost Recovery	∮: <u>A089</u> Region:	_2
Site Status (1) (2) _	_ NPL X Non-N Emergency Resi	PL _ RCRA _ N	on-Site specific dial _ Other	_ Federal
_ Incoming Call _ Outgoing Call _ Conference Call _ Incoming Mail	_ Public Meet _ Cther Meeti _ Data Review	Activities ing <u>X</u> Health Cons ing <u>Health</u> Refe / Yritten Res	ultSite V rralInfo P: ponseTraini:Other	isit rovided ng
Requestor and Af				
City:		Address: State:	Zip Code:	
Contacts and Affiliation (31_Arthur_Block.ATSDR_Region_II()()				
1-592	2-USCG	3-OTHER FED	4-STATE ENV	S-STATE ELT
· · · · · · · · · · · · · · · · · · ·	7-CITY HUTH	8-HOSPITAL	9-LAW ENFORCE	10-FIRE DEPT
11-POISON CTR	12-PRIV CITS	13-00HER	14-manona	15-000
EOC	17-NOAA	18-CTHR STATE	19-OTHR COUNTY	20-01HR CITY
21-INTL	22-CITZ GROUP	23-ELECT. OFF	24-PRIV. CO	25-NEWS MEDIA
26-ARYY	27-NAVY	28-AIR FORCE	29-DEF LOG AGCY	30-8786
31-ATSDR				
Mealth Assessment Petition Assessme Emergency Respons Mealth Consultati	_ Health Studint _ Health Surve e _ Disease Regs on _ Exposr Regst	llno_ Tow Info-Mon try _ Subst-Spec R	profil_ Admin cach _ Other	

At the request of Nick Magriples from EPA Region II, a conference call was held concerning the Bayonne Barrel and Drum site in Newark, New Jersey. EFA had requested that ATSDR comment on the conditions present at the site and determine if levels of contamination pose a health threat. Arthur Block, ATSDR Regional Representative, and Dr. Steve Haness were also participants in the telephone conference.

The site is an abandoned drum reconditioning facility that contains several ash piles generated from incineration activities. There are also drums containing it same ash and aqueous material. The site is situated between the New Jersey

.nclosures: Yes () No (X); MIS entered: Yes () No (X

rmpike and the Pulaski Skyway in a heavily industrialized area of Newark, New rsey. There is a theater located approximately 1/4 mile southwest of the site of the nearest resident is 1/2 mile to the west. The site is enclosed by a most, but it contains some breeches and is low enough in some places for people enter easily.

pling results showed the ash and surrounding soils to contain elevated centrations of cadrium (1,300 ppm), lead (8,400 ppm), and PCBs (408 ppm). 1/ash were also contaminated with VOCs and semi-VOCs. Aqueous material in a drums also contained VOCs [e.g. benzene (92 ppm), ethylbenzene (1,200 ppm), luene (2,400 ppm), and xylene (10,000 ppm).

ok Magriples described the ash material as being sludge-like, and it was likely to generate significant quantities of dust that could impact the recunding area. I explained that the levels of contamination, specifically a PCBs and the heavy metal contamination, posed an on-site health threat. I at on to explain that sampling data and site information did not indicate that quificant levels of contamination (e.g. fugitive ash) would impact off-site eas, and that the threat to people off-site was negligible. There was some widence of ground water contamination, but the aquifer that underlies the operty has been heavily contaminated by industries in the area and is not sing utilized for drinking water or other purposes.

zion Required/Recommendations/Info Provided:

Restrict access to the gite.

Date: 12/2/91

Walker . Skowronski CCB File TMB File

Enclosures: Yes () No (X); MIS entered: Yes () No (X)

COMMUNITY RELATIONS PLAN

BAYONNE BARREL AND DRUM SITE Newark, Essex County, New Jersey

Prepared by:

Region II Technical Assistance Team Roy F. Weston, Inc. Major Programs Division Edison, New Jersey 08837

Prepared for:

United States Environmental Protection Agency Region II Removal Action Branch Edison, New Jersey 08837

I. BACKGROUND

A. Site Description

The Bayonne Barrel and Drum Site (BB&D) is located at 150-154A Raymond Boulevard in Newark, Essex County, New Jersey. The site proper occupies approximately 15 acres of Block 5002, lots 3 and 14. The facility, formerly the location of a drum reconditioning facility, is bounded by Raymond Boulevard and an exit ramp from Routes 1 & 9 to the north and west, an entrance ramp to the New Jersey Turnpike to the east and south, and the parking lot of a movie theater to the south and west (Attachment A). Although the site is located in a heavily industrialized area, the nearest residential area is approximately one-half mile away.

BB&D operated a transportation/storage/disposal facility (TSDF) from the early 1940s until the early 1980s when the company filed for bankruptcy under Chapter 11. Pursuant to approval by the Bankruptcy Court a portion of the now defunct BB&D Site has been leased, reportedly to pay for site security, lighting and a consultant for remediation of the site proper. Chemical Transport, Inc. (CTI), leased the front portion of the property for storage of empty tankers. Subsequently, CTI reportedly subleased (verbal agreement by deceased partner) to ABC Demolition and Dismantling for storage of box trailers.

Currently, all of the original buildings which existed during the facility's operations remain standing. There are three vertical storage tanks, underground storage tanks, ash piles (approximately 1,600 cubic yards), shredded tires, about 400 drums and an ash pile in one of the buildings, and approximately 45,000 empty and partially full drums.

On March 26, 1993, an approval of a removal action at the Bayonne Barrel and Drum Site was signed by the Acting Director, Emergency and Remedial Response Division, U.S. EPA Region II. This removal action was based upon a September 30, 1991 referral of the BB&D Site "proper" by the New Jersey State Department of Environmental Protection and (NJDEP) for consideration of appropriate action under the Comprehensive Environmental Response, Compensation and Liability ACT (CERCLA) of 1980, as amended, 42 U.S.C. #9601, et seq. The removal action was to stabilize and remove 12 drums stored in an unsecured trailer which were abandoned at the site sometime in early 1992. Efforts to obtain responsible party action have been fruitless.

On July 8, 1994, a fire occurred at the site. The fire, believed to have been started by vagrants, destroyed several

buildings near the entrance to the site but did not appear to impact any areas known to contain waste. There were no security guards present at the facility and the site was accessible through openings in the fence. A scavenger was observed sifting through debris and rubble for scrap metal. An empty trailer, found in one of the buildings, was determined to be stolen and reported to the Newark Police The drums and ash previously contained in a Department. building were exposed, due to the collapse of a makeshift plywood wall. The ash pile is uncovered and the drums appear to be in very poor condition. There are an estimated 400 drums located within the building (designated as building No. 2). The area near the incinerator, known to be contaminated with organics, PCBs and heavy metals, was flooded and appears to have been accessed by a heavy vehicle. One of the aboveground storage tanks, known to contain an estimated 1,400 gallons of a liquid appears to be of poor structural integrity. Several areas around and near the tanks, including the opening of an underground storage tank, appear to be heavily

The tire piles on site have increased substantially over the last few years. There are numerous piles of what appears to be a mixture of soil and construction debris on the site. Between the piles of "empty" drums located at the rear of the facility, several drums containing a dark oil-like substance were found. However, due to the removal of their bungs and the infiltration of rainwater and/or pressurization due to elevated ambient temperatures have leaked a substantial portion of their contents onto the ground surface.

II. THREAT

A. Threat of Public Exposure

The site poses a threat to public health or welfare as defined in #300.415(b)(2) of the National Contingency Plan (NCP) and as discussed below.

The contents of the drums found on site pose a potential threat of exposure to unlisted CERCLA hazardous substances by nearby populations, [#300.415(b)(2)(i)].

The threat includes: nearby residents and businesses, passers-by on Routes 1&9 and Raymond Boulevard, and guards at the facility. The presence of the drums in a highly visible location near Raymond Boulevard, and an exit from Routes 1&9, increases the availability of direct access to the drums. Although a fence surrounds BB&D, there are holes cut in several areas that allow for access to the site.

Additionally, the portion of the fence that runs along the New Jersey Turnpike entrance ramp is only four feet high. Potential routes of exposure thus include human contact with released materials, fire and exposure to the resulting emissions.

B. Threat to the Environment

Due to the industrial setting in which BB&D is located, there does not appear to be a substantial threat to sensitive ecosystems or an exposure to hazardous substances by nearby animals and the food chain. However, a release from the site could reach nearby waterways or already affected ecosystems that have been impacted by other facilities. The ground water in the general area is not used for drinking water.

C. Previous Actions to Abate Threat

A removal action of an abandoned trailer containing ignitable materials was conducted in 1993 under the CERCLA. Prior to that action, no pre-remedial activities have been conducted nor are any planned however, pre-remedial investigations have previously taken place at the BB&D Site proper.

D. Current Actions to Abate Threat

On July 20, 1994, The Emergency Response Cleanup Services (ERCS) contractor began removing drums from Building No. 2 to Building No. 1 (see Attachment 3) where they were remotely punched, sampled, overpacked, marked and staged. Field Hazard Categorization (HazCatting) results indicated the presence of chlorinated organics, non-chlorinated organics, flammable liquids, oxidizers and fuming acids.

III. PROPOSED PROJECT

A. Objective of the Project

The objective of the proposed project is to eliminate the threat of release and direct contact with hazardous substances abandoned at the site. The objective can best be accomplished by staging and segregating chemicals followed by sampling and analyzing for compatibility and disposal parameters. Site security will be maintained throughout site operations.

B. Project Tasks

EPA will supervise completion of the following tasks:

- Securing the site;
- Inventorying materials abandoned on site;
- Overpacking leaking or damaged containers;
- Segregating materials;
- Sampling unknown materials;
- Analyzing unknowns; and
- Disposing and/or recycling all hazardous materials.

C. Objectives of the Community Relations Plan

- Provide accurate and concise information to interested citizens, officials and media;
- Coordinate local, state and federal response teams; and
- Enlist the assistance of local officials as needed

The groups to whom the plan is directed are: citizens, citizen groups, local businesses, officials, and local, state and federal agencies working in conjunction with the Region II EPA.

Community relations information will be provided by EPA's Office of External Programs (OEP) with the counsel of the Office of the Regional Administrator.

D. Community Relations Activities

Date (s)	<u>Activities</u>	<u>Objectives</u>	<u>Staff</u>
As needed	Meeting with state, county and local plans officials	To develop local local contingency	OSC OEP Rep.
As needed	Press release	To brief the community and press on site status	OSC OEP Rep.
As needed	Fact sheets	To provide the public with removal activity information	OSC OEP Rep.
As needed	Briefings	To inform state and local officials about ongoing developments at the site	OSC OEP Rep.

Date (s)	<u>Activities</u>	<u>Objectives</u>	Staff
As needed	Public Meetings	To discuss the need for response, review key decision points, explain cleanup methods and respond to the public's concerns.	OSC OEP Rep.

E. Key Officials and Contacts

Federal Elected Officials		
Senator Frank R. Lautenberg (Washington, DC Office) Senate Office Building Washington, DC 20510-3201 or	(202)	224-4744
970 Broad Street Newark, New Jersey 07102	(201)	645-3030
Senator Bill Bradley (Washington, DC Office) Senate Office Building Washington, DC 20510-3202	(202)	224-3224
Box 1031 Blackhorse Pike and Whitman Drive Turnersville, New Jersey 08012	(609)	228-2815
Congressman Robert Menendez (Washington, DC Office) 1531 Longworth Building Washington, DC 20515 or	(202)	225-7919
654 Avenue C Bayonne, New Jersey 07002	(201)	823-2900
State Officials		
State Senator Dr. Wynona M. Lipman 50 Park Place, Suite 1035 Newark, New Jersey 07102	(201)	622-0007
State Assemblyman Willie B. Brown 1081 Bergen Street Newark, New Jersey 07112	(201)	926-4494

State Officials (Continued)

State Assemblyman Jackie R. Mattison 1072 Bergen Street Newark, New Jersey 07112	(201)	705-3595
Bruce Siegel, M.D., Commissioner State Department of Health John Fitch Plaza CN 360 Trenton, N.J. 08876	(609)	292-7837
Ronald Ulinski, Program Manager State Department of Health John Fitch Plaza CN 369 Trenton, N.J. 08625	(609)	588-3124
County Officials		
Essex County Court House Building	(201)	621-5000
Michael Festa Essex County Health Officer	(201)	228-8152
Township Officials		
City Hall, General Information 920 Broad Street Newark, New Jersey 07102	(201)	733-6473

Sharpe James, Mayor (201) 733-6400

City Hall, Room 200 Broad Street

Newark, New Jersey 07102

Newark Council Members

Council President: Donald Bradley Councilman At Large: Donald Tucker Councilman At Large: Gary Harris Councilwoman At Large: Mildred Crump Councilman At Large: Louis Quintana Westward Council: Donald L. Rice Eastward Council: Henry Martinez Northward Council: Anthony Carrino Centralward Council: George Branch

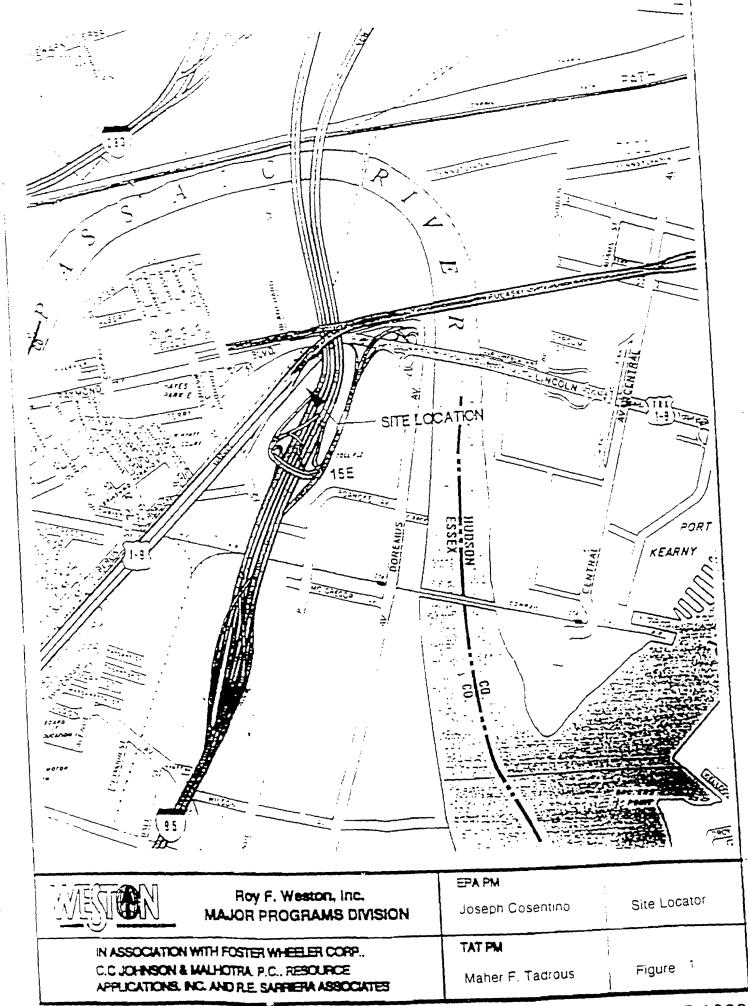
Newark Board of Health	(201)	733-5310
Newark Fire Department	(201)	733-7424
Newark Police Department	(201)	733-6007

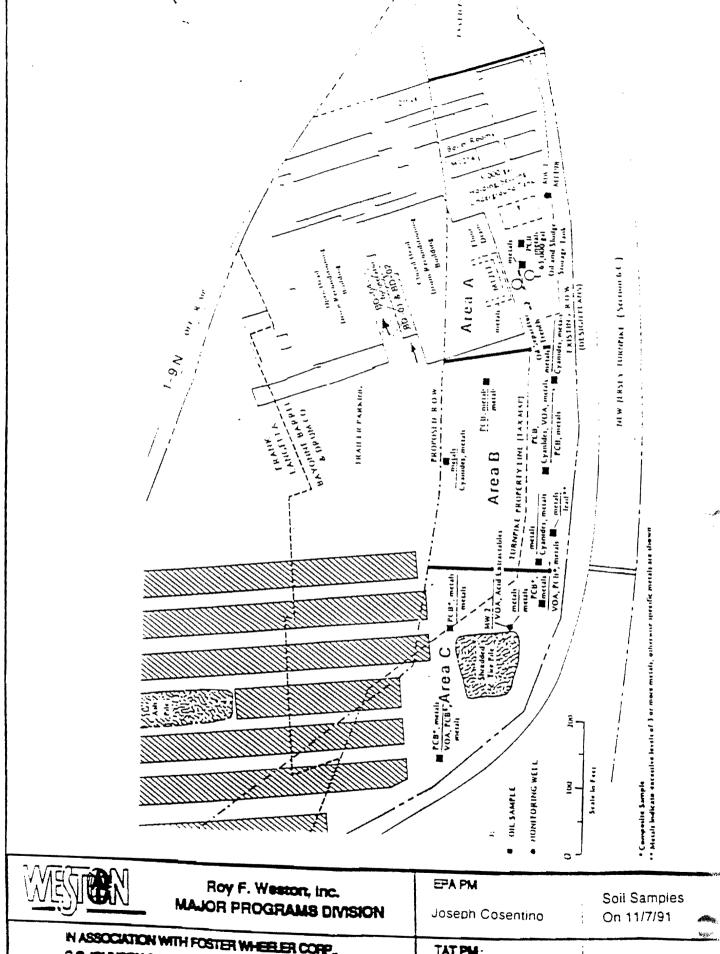
Newspaper

The Star Ledger (201) 877-4141

Television

WWOR/Channel 9 (201) 348-0009





MAJOR PROGRAMS DIVISION

Joseph Cosentino

On 11/7/91

NASSOCIATION WITH FOSTER WHEELER CORP.

C.C. JOHNSON & MALHOTRA P.C., RESOURCE

APPLICATIONS INC. AND RESEARCE Maher F. Tadrous

Figure 2

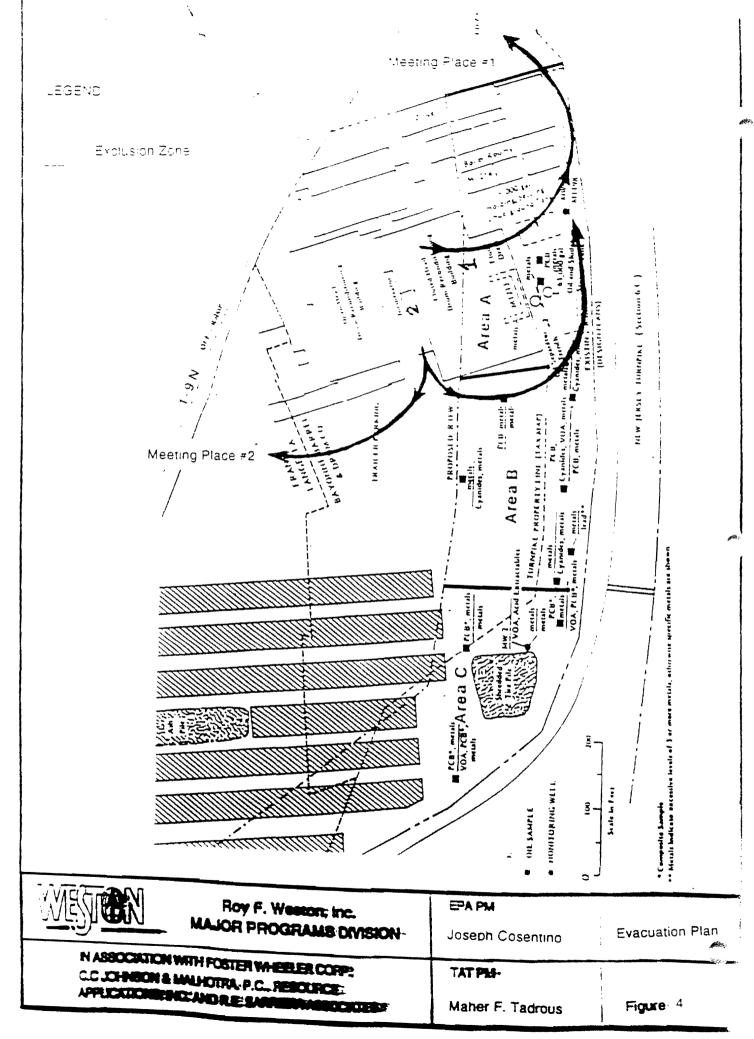
LEGEND DeCon. Truck Exclusion Zone Drum Route To Stabilization From Building 1 To Building 2 fig. nier Area B atherwise specific metals are pleann VOA, relle, A 10 a C 3 Roy F. Weston, Inc. EPA PM MAJOR PROGRAMS DIVISION Drum Route To Joseph Cosentino Stabilization

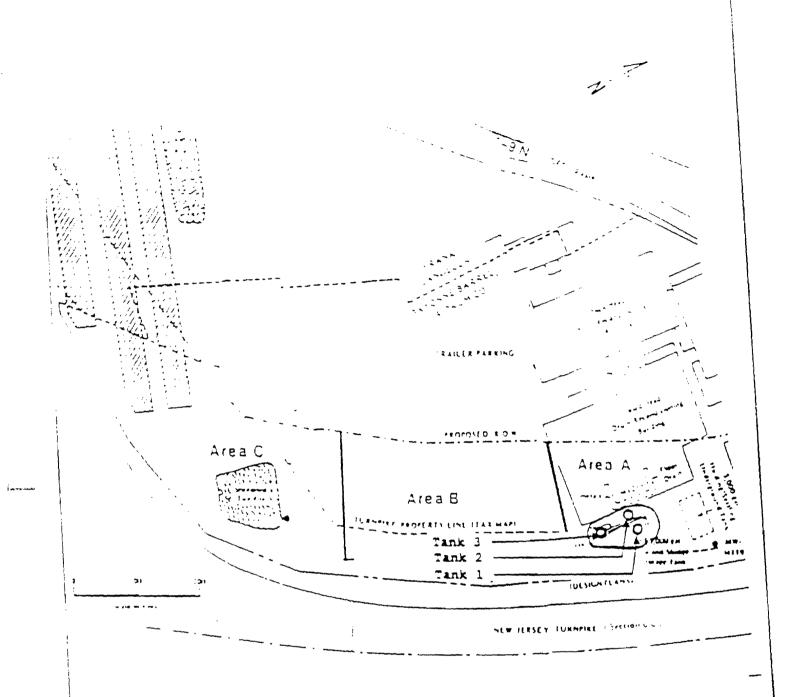
N ASSOCIATION WITH FOSTER WHERE R CORP.: C.C. JOHNSON & MALHOTRA-P.C., RESOURCE: APPLICATION RING: AND RESAMES AND COLUMN

TAT PM-

Maher F. Tadrous

Figure: 3





MEGIEN

Roy F. Weston, Inc. MAJOR PROGRAMS DIVISION EPA PM

Joseph Cosentino

Tanks Locator

IN ASSOCIATION WITH FOSTER WHEELER CORP...
C.C. JOHNSON & MALHOTRA, P.C., RESOURCE
APPLICATIONS: NC. AND R.E. SAPPLETA ASSOCIATES

TAT PM

Maher F. Tadrous

Figure 5

NOTICE OF PUBLIC AVAILABILITY

The United States Environmental Protection Agency Announces
The Availability of the Administrative Record for
the Bayonne Barrel and Drum Site

The U.S. Environmental Protection Agency (EPA) announces the availability for public review of files comprising the administrative record for the selection of the removal action at the Bayonne Barrel and Drum Site. The EPA seeks to inform the public of the availability of the record file at this repository and to encourage the public to comment on documents as they are placed in the record file.

The administrative record file includes documents which form the basis for the selection of a removal action at this site. Documents now in the record file include: Sampling Analytical Data Report and the EPA regional guidance documents list. Other documents will be added to the record files as site work progresses. These additional documents may include, but are not limited to, other technical reports, validated sampling data, comments, and new data submitted by interested persons, and the EPA responses to significant comments.

The administrative record files are available for review during normal business hours at:

Newark Public Library 5 Washington Street Newark, NJ 07101 Phone (201) 733-7800 U.S. EPA - Region II Removal Action Branch 2890 Woodbridge Avenue

Bldg 209 Edison, N.J.

Phone (908) 906-6983

Additional information is available at the following location:

Guidance documents and technical literature

U.S. EPA - Region II Removal Records Center 2890 Woodbridge Avenue

Bldg 205 Edison, N.J.

Phone (908) 906-6980

Written comments on the Administrative Record should be sent to:

Joseph Cosentino
On-Scene Coordinator
Removal Action Branch
U.S. EPA - Region II
2890 Woodbridge Ave.
Edison, NJ 08837

EPA REGIONAL GUIDANCE DOCUMENTS

The following documents are available for public review at the EPA Region II Field Office, Raritan Depot, Woodbridge Avenue, Edison, New Jersey during regular business hours. Contact Joseph Cosentino, OSC at (908) 906-6983 for more information.

- Glossary of EPA Acronyms.
- * Superfund Removal Procedures-Revision #3. OSWER Directive 9360.0-03B, February 1988.
- * Hazardous Waste Operations and Emergency Response. Notice of Proposed Rulemaking and Public Hearings. 29 CFR Part 1910, Monday, August 10, 1987.
- * Guidance on Implementation of Revised Statutory Limits on Removal Action. OSWER Directive 9260.0-12, May 25, 1988.
- * Redelegation of Authority under CERCLA and SARA. OSWER Directive 9012.10, May 25, 1988.
- * Removal Cost Management Manual.
 OSWER Directive 9360.0-02B, April, 1988.
- * Field Standard Operating Procedures (FSOP).

#4 Site Entry.

#6 Work Zones.

#8 Air Surveillance.

#9 Site Safety Plan.

- * Standard Operating Safety Guides -- U.S. EPA Office of Emergency and Remedial Response, July 5, 1988.
- * CERCLA Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Superfund).
- * SARA: Superfund Amendments and Reauthorization Act of 1986.
- * NCP: National Oil and Hazardous Substances Pollution Contingency Plan. Publication No. 9200.2-14.
- * Guidance on Implementation of the "Contribute to Efficient Remedial Performance" Provision Publication No. 9360.0-13.

Additional Guidance Documents are listed below and are available for review at the EPA Region II Removal Records Center.

- * The Role of Expedited Response Actions (EPA) Under SARA Publication No. 9360.0-15.
- * Guidance on Non-NPL Removal Actions InvolvingNationally Significant or Precedent Setting Issues Publication No. 9360.0-19.
- * ARARS During Removal Actions Publication No. 9360.3-02.
- * Consideration of ARARS During Removal Actions -Publication No. 9360.3-02FS.
- * Public Participation for OSCs Community Relations and the Administratrive Record Publication No.9360.3-05.
- * Superfund Removal Procedures Removal Enforcement Guidance for On-Scene Coordinators Publication No. 9360.3-06.
- * QA/QC for Removal Actions Publication No. 9360.4-01.
- * Compendium for ERT Air Sampling Procedures Publication No. 9360.4-05.

NOTICE

U.S. ENVIRONMENTAL PROTECTION AGENCY ANNOUNCES THE AVAILABILITY OF THE ADMINISTRATIVE RECORD BAYONNE BARREL & DRUM SITE NEWARK, ESSEX COUNTY, NEW JERSEY

The U.S. Environmental Protection Agency (EPA) announces the availability for public review of files comprising the administrative record for the selection of the removal action at the Bayonne Barrel & Drum site, Newark, Essex County, New Jersey. The EPA seeks to inform the public of the availability of the record file at this repository and to encourage the public to comment on the documents comprising this administrative record.

The administrative record includes documents which form the basis for the selection of a removal action at this site. Documents now in the record file include: Letter of correspondence from NJDEP requesting federal assistance for removal action, Preliminary Assessment Report, Removal Site Evaluation Report, Health & Safety Inspection Report, Site Audit Report, Pollution Reports, RCRA Enforcement Inspection Sampling Results, Preliminary Assessment Sampling Plan, Preliminary Assessment Sampling Trip Report, Initial Site Health & Safety Plan, Action Memorandum, RCRA Enforcement Inspection Report, ATSDR Record of Activity, Community Relations Plan, Notice of Public Availability, and the EPA regional guidance documents list. Other documents will be added to the record files as site work progresses. These additional documents may include, but are not limited to, other technical reports, validated sampling data, comments, and new data submitted by interested persons, and EPA responses to significant comments.

The administrative record files are available for review during normal business hours at:

Newark Public Library 5 Washington Street Newark, NJ 07101 Phone: (201) 733-7800 U.S.EPA - Region II Removal Action Branch 2890 Woodbridge Avenue Building 209 Edison, NJ 08837 Phone: (908) 906-6983

Additional information is available at the following locations:

Guidance documents and technical literature

U.S. EPA - Region II Removal Records Center 2890 Woodbridge Avenue Building 205 Edison, NJ 08837 Phone: (908) 906-6980

Written comments on the Administrative Record should be sent to:

Joseph Cosentino
On-Scene Coordinator
Removal Action Branch
U.S.EPA - Region II
2890 Woodbridge Avenue
Building 209
Edison, NJ 08837

BBO-5.2001

NOTICE OF PUBLIC AVAILABILITY

U.S. ENVIRONMENTAL PROTECTION AGENCY ANNOUNCES THE AVAILABILITY OF THE ADMINISTRATIVE RECORD FOR THE **BAYONNE BARREL & DRUM SITE** NEWARK, ESSEX COUNTY, NEW JERSEY

The U.S. Environmental Protection Agency (EPA) announces the availability for public review of files comprising the administrative record for the selection of the removal action at the Bayonne Barrel & Drum site, 150-154A Raymond Boulevard, Newark, Essex County, New Jersey. The EPA seeks to inform the public of the availability of the record file at this repository and to encourage the public to comment on the documents comprising this administrative record.

The administrative record includes documents which form the basis for the selection of a removal action at this site. Documents now in the record file include: Letter of correspondence from NJDEP requesting federal assistance for removal action, Preliminary Assessment Report, Removal Site Evaluation Report, Health & Safety Inspection Report, Site Audit Report, Pollution Reports, RCRA Enforcement Inspection Sampling Results, Preliminary Assessment Sampling Plan, Preliminary Assessment Sampling Trip Report, Initial Site Health & Safety Plan, Action Memorandum, RCRA Enforcement Inspection Report, ATSDR Record of Activity, Community Relations Plan, Notice of Public Availability, and the EPA regional guidance documents list. Other documents will be added to the record files as site work progresses. These additional documents may include, but are not limited to, other technical reports, validated sampling data, comments, and new data submitted by interested persons, and EPA responses to significant comments.

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Removal Action Branch
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Edison, NJ 08837

Additional information is available at the following locations:

Guidance documents and technical literature

U.S. EPA - Region II Removal Records Center 2890 Woodbridge Avenue Building 205 Edison, NJ 08837 Phone: (908) 906-6980

Written comments on the Administrative Record should be sent to:

Joseph Cosentino On-Scene Coordinator U.S.EPA - Region II Removal Action Branch 2890 Woodbridge Ave., Bldg. 209 Edison, NJ 08837



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION II EDISON, NEW JERSEY 08837

Mr. Alex Boyd, Director Newark Public Library 5 Washington Street Newark, New Jersey 07101

Dear Mr. Boyd:

The U.S. Environmental Protection Agency, (EPA) is currently performing a time-critical removal action at the Bayonne Barrel and Drum Site under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The CERCLA Removal Action is located in Newark, Essex County, New Jersey.

By providing the public with greater access to these records, we hope that they will be better equipped to comment constructively about site activities and to understand the issues relating to the selection of the response action at the site.

We appreciate having the Newark Public Library as the designated administrative record facility for the Bayonne Barrel and Drum Site. The enclosed record files, along with any future documents relating to technical activities at the site should be placed in the Newark Public Library and be available for public review. The record files should be treated as a non-circulating reference and should not to be removed from your facility.

Also enclosed is a fact sheet, "Administrative Records in Local Repositories", to assist you and your staff in answering questions posed by the public concerning administrative records for selection of response actions at Superfund sites.

Please feel free to distribute this guide to the public. To ensure the receipt of the administrative record file, I would appreciate your completion of the attached Document Transmittal Acknowledgement form. Please return this form in the enclosed self-addressed, stamped envelope.

Again, I would like to thank you for your cooperation with the U.S. EPA in serving as a Field Repository. If you have any questions or comments, please contact me at (908) 906-6983.

Sincerely,

Joseph Cosentino

On-Scene Coordinator